

**BRIDGING THE GAP BETWEEN VIRTUAL AND REALITY: TWO ESSAYS
EXAMINING THE INFLUENCE OF IDENTITY-CONGRUENCY IN OFFLINE AND
ONLINE CONTEXTS**

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Lauren Sheila Grewal, PhD

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Identities are powerful: Identity is central to how individuals regulate their attitudes, behaviors, beliefs, and judgments. Generally, past research suggests that presenting products and brands in ways that are identity-congruent to consumers will be of benefit to marketers. But is this always true? In my dissertation, two essays examine the way that consumers and marketers navigate various types of identities, both offline (i.e., food decision making) and online (i.e., identity-relevant posting on social media). Importantly, I ascertain conditions in which identity-congruence can prompt and impede consumption, thus shedding new light on the potential and pitfalls of using identity in marketing contexts.

In Essay 1, I suggest that, beyond interacting with food simply as a matter of indulgence or restriction, consumers have identities based in food. Specifically, I define food identities as a self-conception organized around two consumption priorities—those related to social and individual functions and those related to utilitarian or hedonic concerns. Across studies I create a simple four-item food identity measure that maps on to these different priorities and the relationship between these consumption priorities that can then be used to empirically measure possible types of food identities. Using this measure, I find that the strength of identity-congruence between consumption messages and food identities can be a better predictor than more traditional food-consumption measures (e.g., diet specific self-control, restrained eating) in determining consumers' choices, attitudes, and consumption.

In Essay 2, I move from an offline situation where an identity framework influences greater identity-consistent choice and consumption, to a situation where, after consumers engage with identity-relevant products on social media, they have lower purchase intentions for these same and similar identity-relevant products. Consumers frequently express themselves by posting about products in social media. Taking an identity-theory perspective, consumers use products to signal their identities, and posting products in social media is a way to send *virtual* identity signals. Paradoxically, I find that this behavior may reduce the consumer's desire to purchase related identity-signaling products, as the act of posting fulfills their identity-signaling needs. Identity-signaling needs are fulfilled when product posts on social media allow consumers to signal their identities both to themselves and to others. These findings have important implications for how firms conduct social media marketing, which often aims to get consumers to virtually engage with their products by posting about and sharing them.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	XV
1.0 INTRODUCTION.....	1
2.0 ESSAY 1: YOU ARE WHAT (AND HOW, AND WITH WHOM) YOU EAT: A STUDY ON FOOD IDENTITY.....	4
2.1 THEORETICAL BACKGROUND	6
2.1.1 Food as an Expression of Identity	7
2.1.2 Food as Central to Identity	8
2.1.3 How I Define Food Identity	10
2.1.3.1 Individual-Communal Priorities	11
2.1.3.2 Utilitarian-Hedonic Priorities.....	13
2.1.4 Food Identities Compared to Other Expressions through Food	14
2.1.5 Overview of Studies.....	15
2.1 PILOT STUDY 1: TRAIT IDENTIFICATION OF FOOD IDENTITY	16
2.2.1 Method	17
2.2.2 Results	18
2.2.3 Discussion.....	19
2.3 PILOT STUDY 2: VALIDATING PRIORITIES UNDERLYING FOOD IDENTITIES.....	20

2.3.1 Method	21
2.3.2 Results	22
2.3.2.1 Correlation Analyses	22
2.3.2.2 Food Identity Centrality and Importance	25
2.3.3 Discussion.....	25
2.4 STUDY 1A: ESTABLISHING CONSTRUCT VALIDITY	26
2.4.1 Method	27
2.4.1.1 Sample One.....	27
2.4.1.2 Sample Two	27
2.4.1.3 Sample Three	28
2.4.2 Results	28
2.4.2.1 Validity Tests across Samples.....	28
2.4.2.3 Test-Retest Reliability	31
2.4.2.4 K-Means Clustering.....	31
2.4.3 Discussion.....	31
2.5 STUDY 1B: FOOD IDENTITY PRORITIES ARE SPECIFIC TO FOOD IDENTITY	32
2.5.1 Method	32
2.5.2 Results	33
2.5.3 Discussion.....	34
2.6 STUDY 2: FOOD IDENTITIES INFLUENCE RESTAUARANT CHOICE	35
2.6.1 Method	35
2.6.1.1 Identity-Congruency.....	36

2.6.2 Results	37
2.6.2.1 Private-Fuel	37
2.6.2.2 Private-Pleasure.....	38
2.6.2.3 Social-Fuel	38
2.6.2.4 Social-Pleasure	38
2.6.3 Discussion.....	39
2.7 STUDY 3: FOOD IDENTITIES AND IDENTITY SALIENCE ON PURCHASE INTENTIONS AND ATTITUDES	40
2.7.1 Method	41
2.7.1.1 Identity-Congruency.....	42
2.7.2 Results	43
2.7.2.1 Purchase Intentions	43
2.7.2.2 Advertisement Evaluations.....	44
2.7.3 Discussion.....	46
2.8 STUDY 4: FOOD IDENTITY-STRENGTH PREDICTS CONSUMPTION.....	46
2.8.1 Method	47
2.8.1.1 Identity-Congruency.....	49
2.8.1.2 Identity-Strength.....	49
2.8.2 Results	50
2.8.2.1 Choice to Consume Popcorn.....	50
2.8.2.2 Role of Identity-Congruency on Popcorn Consumed.....	50
2.8.2.3 Role of Identity-Strength on Popcorn Consumed.....	51
2.8.3 Discussion.....	53

2.9 GENERAL DISCUSSION.....	54
2.9.1 Theoretical Contributions	54
2.9.2 Practical Implications	55
2.9.3 Directions for Future Research	57
3.0 ESSAY 2: WHEN POSTING ABOUT PRODUCTS IN SOCIAL MEDIA BACKFIRES: THE NEGATIVE EFFECTS OF CONSUMER IDENTITY-SIGNALING ON DESIRE TO PURCHASE.....	61
3.1 THEORETICAL BACKGROUND.....	65
3.1.1 Identity-Relevant Consumption.....	65
3.1.2 Why and When Posting in Social Media Can Fulfill Identity-Signaling Needs	67
3.1.3 Overview of Studies.....	70
3.2 STUDY 1.....	71
3.2.1 Method	71
3.2.2 Results	73
3.2.2.1 Feelings Regarding Dependent Variable.....	73
3.2.2.2 Purchase Intentions	73
3.2.3 Discussion.....	74
3.3 STUDY 2.....	74
3.3.1 Method	75
3.3.2 Results	76
3.3.2.1 Product Pre-Test.....	76
3.3.2.2 Manipulation Check	77

3.3.2.3 Feelings Regarding Dependent Variables	77
3.3.2.4 Purchase Intentions	77
3.3.3 Discussion.....	79
3.4 STUDY 3.....	80
3.4.1 Method	80
3.4.2 Results	82
3.4.2.1 Manipulation Check	82
3.4.2.2 Feelings Regarding Dependent Variable	83
3.4.2.3 Willingness to Pay	83
3.4.2.4 Moderated Mediation	84
3.4.3 Discussion.....	86
3.5 STUDY 4A.....	87
3.5.1 Method	88
3.5.2 Results	89
3.5.2.1 Manipulation Check	89
3.5.2.2 Feelings Regarding Dependent Variables	89
3.5.2.3 Purchase Intentions	89
3.5.2.4 Mediated Moderation.....	91
3.5.3 Discussion.....	92
3.6 STUDY 4B.....	93
3.6.1 Method	94
3.6.2 Results	96
3.6.2.1 Manipulation Check	96

3.6.2.2 Feelings Regarding Dependent Variables	96
3.6.2.3 Purchase Intentions	97
3.6.3 Discussion.....	99
3.7 STUDY 5.....	100
3.7.1 Method	101
3.7.2 Results	103
3.7.2.1 Manipulation Check	103
3.7.2.2 Feelings Regarding Dependent Variables	103
3.7.2.3 Time 1 Choice Results	104
3.7.2.4 Mediation through Identity-signaling.....	104
3.7.2.5 Alternative Possible Mechanisms	105
3.7.2.6 Time 2 Choice Results	105
3.7.3 Discussion.....	106
3.8 GENERAL DISCUSSION.....	107
3.8.1 Theoretical Contributions and Practical Implications	108
3.8.2 Directions for Future Research	110
APPENDIX A	112
APPENDIX B	114
APPENDIX C	116
APPENDIX D	117
APPENDIX E	118
APPENDIX F	119
APPENDIX G.....	120

APPENDIX H.....	121
APPENDIX I	122
APPENDIX J.....	124
APPENDIX K.....	125
APPENDIX L	126
APPENDIX M	127
APPENDIX N	128
APPENDIX O.....	129
APPENDIX P	132
APPENDIX Q.....	134
APPENDIX R.....	137
APPENDIX S.....	140
APPENDIX T	141
APPENDIX U	142
APPENDIX V	146
APPENDIX W.....	147
BIBLIOGRAPHY	150

LIST OF TABLES

Table 1: Categories and Items Coded From the Open-Responses.....	18
Table 2.1: Correlations between Food Identities and Each Consumption Priority.....	24
Table 3: Correlations Across Samples	30
Table 4: K-Means Clustering Counts	31
Table 5: Correlations Across Identity Domains.....	34
Table 6: Regression Results.....	39
Table 7: Moderated Mediation.....	86
Table 8: Mediated Moderation.....	92

LIST OF FIGURES

Figure 1: Percentage of Responses that Mentioned Consumption Priorities as Part of Food Identity	19
Figure 2: Operationalization of Consumption Priorities and Food Identities.....	24
Figure 3: Purchase Intentions by Identity Prime and Identity-Congruency	44
Figure 4: Advertisement Evaluations by Identity Prime and Identity-Congruency	45
Figure 5: Amount Popcorn Consumed by Identity-Congruency and Identity-Strength.....	52
Figure 6: Overview of Studies	68
Figure 7: Purchase Intentions by Posting and Visibility.....	79
Figure 8: WTP by Posting and Identity-Strength	84
Figure 9: Purchase Intentions by Posting and Product Evaluated	90
Figure 10: Purchase Intentions by Posting and Product Evaluated	99
Figure 11: Choice of Identity-relevant Product by Visibility and Salience of Post.....	106

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1.0 INTRODUCTION

Identity is central to how individuals regulate their attitudes, behaviors, beliefs, and judgments. Consumers have multiple identities that make up their global sense of self that vary in centrality, strength, and salience (Kleine, Kleine, and Kernan 1993). In line with this, research has shown that when certain identities are more salient, consumers will calibrate their attitudes, behaviors, beliefs, and judgments according to the salient identity (Kleine et al. 1993; Oyserman 2009; Reed et al. 2012). This means that when a specific identity is salient, an individual will make sense of the world using an identity-consistent mind-set that results in identity-consistent behavior and expression (Oyserman 2009). Consequently, identity-consistent stimuli are more positively evaluated (Forehand and Deshpandé 2001; White and Dahl 2007), while identity-inconsistent stimuli are more negatively evaluated (Berger and Heath 2007; Escalas and Bettman 2005; White and Dahl 2006).

Considering that the majority of prior research on identity-based motivation has shown that consumers respond positively to identity-congruent stimuli, across my two essay dissertation, I examine whether identity-congruency always encourages greater identity-consistent attitudes and behavior. My dissertation progresses from an offline scenario where identity-congruency encourages identity-consistent behavior (through the examination of food identities), to a scenario where identity-congruence, in the realm of social media, encourages less identity-consistent consumption.

First, Essay 1 examines the novel offline identity of food identity, wherein identity-congruency between a consumer and food-related stimuli encourages greater identity-consistent behavior. I define food identities as a self-conception organized around two consumption priorities—those related to social and individual functions and those related to utilitarian or hedonic concerns. Considering this definition, I find that the fit of identity-congruence between stimuli and food identities can be a better predictor than more traditional food-consumption measures in determining consumers' attitudes and behavior. Moving from the offline, to online domain, in Essay 2, I examine a situation where, after consumers engage with identity-congruent products on social media, they have lower purchase intentions for identity-consistent products. I find that when consumers use virtual identity-congruent products to signal their identities, that this behavior can reduce the consumer's desire to purchase related identity-signaling products, as the act of posting fulfills their identity-signaling needs.

Taken together, the two essays of my dissertation make novel theoretical contributions not only to the identity literature, but also to the literatures studying food decision making, online WOM, and the individual consequences of social media use. In Essay 1, using a measure I created, I connect consumers' consumption priorities with their self-conception, linking attitudes and behaviors surrounding food to identity. In Essay 2, I focus on an underexplored yet managerially relevant type of social media engagement—product posting—and show how virtual identity-signaling influences purchase intentions for identity-consistent products. Over both essays, I identify conditions where identity-congruence prompts identity-consistent behavior (Essay 1) and impedes identity-consistent behavior (Essay 2). Therefore, I believe that the findings of my dissertation essays provide novel insights regarding when and why identity-congruency will encourage more or less identity-consistent consumer behavior.

In addition to having novel theoretical findings related to identity-congruency and identity-consistency, I believe my dissertation essays have managerial importance. Considering Essay 1, I believe that food identities may influence how consumers approach food-related decisions, and thus, the insights of my work may provide public policy makers, managers, and consumers with an identity-relevant framework that could be utilized. Essay 2 has implications for social media marketing practice as I find that a consumer's posting behavior could, ironically, be disadvantageous for that brand or retailer if a consumer is able to fulfill their identity-signaling needs online. My research, fortunately, has possible suggestions for marketers to minimize this unintended consequence of engagement.

Lastly, I believe the essays of this dissertation are just the beginning in exploring these identity-relevant topics. The research conducted in Essay 1 is an initial theory test for food identities' existence and influence on consumer behavior. Considering this, I have only scratched the surface of the possible types of food identities that could exist, and on the predictive power of food identities. Some possible ideas for future research include, (1) examining the intersection of food identities and affective consumption, (2) considering food identities and information processing of food, health, or weight-related messaging, (3) the influence of food identities in dyads or group decision-making, (4) how food identities impact behavior when they are seen as actual identities or as ideal-selves, and (5) exploring how food identity influences food behaviors more generally. The research conducted in Essay 2 also provides a number of future research directions. Some of these possible ideas for future research include, (1) how consumers can post about non-material, experiential things like ideas, activities, and goal striving more generally, (2) the impact of a consumer's network on social media, or (3) how consumers manage balancing multiple identities online, and how this then influences their identity-consistent behavior.

2.0 ESSAY 1: YOU ARE WHAT (AND HOW, AND WITH WHOM) YOU EAT: A STUDY ON FOOD IDENTITY

Many factors can influence food decisions (e.g., health goals, desires to fit in or be unique, national, ethnic, or religious expression; Fedoroff, Polivy, and Herman, 2003; McFerran et al. 2010; Raghunathan, Naylor, and Hoyer 2006; Redden and Haws 2013; Wallendorf and Arnold 1991; Wooten 1995) yet seeing food as a “means to an end” may not capture all the nuance surrounding food decision-making. In the present research, I propose that how people chronically approach food in their lives constitutes an important part of their identity.

Because identities influence peoples’ judgments, choices, and behaviors when they are deemed relevant and salient to a situation (Reed 2004), I suggest that conceptualizing consumers’ priorities regarding food through an identity lens may shed light on a wide range of judgments, attitudes, and behaviors consumers engage (e.g., grocery shopping, going out for a meal, general consumption attitudes and habits). Importantly, I differentiate my focus on food decision-making in that I am not focused on the food people choose per se, but how people chronically approach food decisions and situations to organize their lives.

Food identities are defined in this paper as a self-conception organized around a set of consumption priorities. This definition is based on research that has shown social-cognition-oriented definitions of the self (Aquino and Reed 2002). I define, and view food identities based

on the relationship of two consumption priorities: 1) the extent to which an individual uses food for their individual or communal priorities, and 2) the extent to which food-related choices are used to achieve their utilitarian or hedonic priorities.

Using this food identity framework, across 7 studies, I show that by asking consumers to evaluate the importance of their consumption priorities, I can predict many attitudes, behaviors, and consumption choices. First, I present empirical evidence supporting the existence of peoples' food identities as based on the relationship of their consumption priorities. Second, I develop a food identity profile that measures the different food identities that are rooted in the combinations of these two consumption priorities (i.e., individual-social priorities and utilitarian-hedonic priorities) drawn from prior research and the findings of my first pilot study. I additionally provide evidence for the construct validity of this food identity measure. Finally, I test the behavioral and predictive validity of some possible food identities across multiple identity-relevant situations such as consumers' real choice of restaurants, behavioral attitudes, and real consumption.

This research makes a number of contributions to the literature. Critically, this is the first research project exploring the existence of unique food identities through empirical testing. Given the pervasiveness of food decisions in everyday life, recognition of peoples' food identities, and the role of this identity on behavior offers the potential for future research in a wide range of consumer experiences. Considering the chronic role of consumption priorities for peoples' identities is novel as prior research has focused specifically on the *actual food* people choose rather than on chronic values and priorities. Finally, as my perspective reaches across multiple literatures, I hope that this identity-based discussion of food may spark additional research that considers food not only in terms of marketing, but considering its rich sociological,

anthropological, and psychological dimensions – such that we can better understand the way that we shape, and are shaped by, food consumption experiences.

2.1 THEORETICAL BACKGROUND

Identities are a basis for social classification that helps create and maintain peoples' self-concept (Aquino and Reed 2002). Consumers have different identities that make up their global sense of self that vary in centrality, strength, and salience (Kleine, Kleine, and Kernan 1993).

Additionally, individuals will calibrate and regulate their attitudes, behaviors, beliefs, and judgments according to salient identity ideals as identities provide structure to their lives (Kleine et al. 1993; Oyserman 2009; Reed et al. 2012).

When identities are salient, individuals make sense of the world using an identity-consistent mind-set that results in identity-consistent behavior and expression (Oyserman 2009). Consequently, identity-consistent stimuli are more positively evaluated (Forehand and Deshpandé 2001; White and Dahl 2007), while identity-inconsistent stimuli are more negatively evaluated (Berger and Heath 2007; Escalas and Bettman 2005; White and Dahl 2006).

Considering this, consumers express, maintain, and reinforce their identities through purchasing and consuming identity-consistent goods and avoiding identity-inconsistent goods (Belk 1988; Berger and Ward 2010; Escalas and Bettman 2005; Forehand, Deshpandé, and Reed 2002; Reed 2004; Ward and Broniarczyk 2011). As food is one type of good that individuals have been

shown to utilize to enforce identity-consistent behavior, in the next section, I discuss prior research that has examined the role of food in relation to identity expression.¹

2.1.1 Food as an Expression of Identity

Consumer-focused research has suggested that food decisions are influenced by individuals' various identities (Berger and Rand 2008; White and Dahl 2006; Wooten 1995). Oftentimes this research has shown that food decisions allow consumers to express themselves relative to an in-group or outgroup (Berger and Rand 2008; McFerran et al. 2010; White and Dahl 2006; White and Dahl 2007). For example, research has shown that men may forego their intrinsic food preferences to follow masculine gender identity norms when choosing food (Gal and Wilkie 2010) and men have been shown to avoid steak labeled as "ladies cut" (White and Dahl 2006). As well, the likelihood of choosing a traditional ethnic food (e.g., chicken mole) or non-traditional ethnic food (e.g., grilled chicken) has been shown to depend on whether people want to express their ethnic identity among other ethnic individuals or if they are trying to blend in with a non-ethnic outgroup (Wooten 1995).

Additionally, there is a stream of consumer research focused on how identity-relevance and identity-salience influences consumers' health behavior far more than "personal choices" or "health-related goals" (Oyserman, Fryberg, and Yoder 2007). Building from identity-based motivation theory, the research finds that, when salient, the self-schemas associated with different identities that are not linked to healthy-behaviors (e.g., minority racial group and lower socio-economic class), caused participants to feel increased health fatalism, undermined knowledge about healthy behavior, and considered healthy actions outside of the realm of the

¹ As multiple literatures have connected identity to food decisions, I have chosen to focus on research particularly relevant to my investigation to highlight the different types of research that exists on this topic and showcase the major findings across disciplines surrounding identity and food as it pertains to this research.

kinds of things “they do” (Oyserman, Fryberg, and Yoder 2007). On the other side, when unhealthy behaviors have been linked to dissociative out-groups, participants made healthier choices such as in the case of undergraduates selecting healthier food when junk food was linked to a social identity that differed from their own (i.e., grad students; Berger and Rand 2008).

Along with this literature, there has been work in sociology and anthropology that has focused on the varying identities that can be expressed through food decisions. For example, there are religions that choose to avoid certain foods such as Judaism, Islam, and Hinduism. Research has discussed how this avoidance is both to create key components of religious identity (e.g., to achieve spiritual progress; Nesbitt 2004) and to create a “not-me” behavior to separate themselves from other people (Appadurai 1981; Rosenblum 2010). On the other hand, other identities are represented not through avoidance, but through choice and consumption such as Americans celebrating Thanksgiving with a turkey feast in the United States (Wallendorf and Arnold 1991) or Mexicans showcasing their national identity through their love of chiles (a food that was banished in parts of Europe due to its spiciness in the eighteenth century; Pilcher 1998).

Most of the literature surrounding the relationship of food and identities has examined how food is an outcome of identity enactment, rather than viewing food as a component of identity itself. However, there has been some qualitative work that has focused on the role of food as a basis for self-structure and identity, more in-line with how I discuss food identities in this research. I discuss this perspective of food and identity next.

2.1.2 Food as Central to Identity

In anthropology and sociology, there has been a stream of research focused on the idea that food itself is central to a person’s sense of self. Food is seen as central to self-conception because food

can assert diversity, hierarchy, organization, and social connection that provides meaning to the world (Bisogni et al. 2002; Fischler 1998; Mennel, Murcott, and van Otterloo 1992). One way that individuals have incorporated food into their sense of self is in the case of includes vegetarians who choose to do so for ethical beliefs and values (rather than for health reasons; Jabs, Devine, and Sobal 1998; Sobal, Jabs, and Devine 2000). Another type of self that has been studied is a self-identity that has been built around the concept of slow or organic food use as a means of aligning the self with the values of food that is considered local or nearby (i.e., “being a green consumer;” Leitch 2003; Shepherd and Raats 1996; Sparks and Shepherd 1992).

Food has been shown to not only be central for different personal identities people may have, but food has also been shown to be a central component in some social identities (e.g., family identities; Charles and Kerr 1988; Collins 1985; De Vault 1991; Mennell et al. 1992; Valentine 1999; Warde and Hetherington 1994). For example, Charles and Kerr (1988) discuss the role of “proper meals” as a base of a family’s ability to have a cohesive social unit. Valentine (1999) interviewed a number of families over two years, and in one family, they discussed how their teenage daughter’s decision to be a vegetarian ended up shifting the whole family to this behavior as it became too costly and impractical to try and keep separate diets in the family, and eventually it became a self-important identity relevant they held rather than a food behavior born through convenience. Additionally, one qualitative research project using focus groups investigated the food identities individuals may have when they consider their consumption behaviors. The researchers found that people truly believed they had food identities that were relevant to their lives as related to their eating practices, personal characteristics (i.e., self-images and personal attributes outside of pure eating habits), and reference groups and social categories (Bisogni et al. 2002).

Despite the different streams of research looking at food and identity, there has not been empirically-focused research on how people chronically approach food decisions and situations as organizing aspects of their lives. Drawing from multiple literatures on consumers' relationships with food, I propose that consumers can have chronic and stable food identities that drive attitudes and behaviors. I build from prior research in two distinct ways. First, I assert that the consumption priorities people have can be essential to their self-conception. Very little of the literature that has discussed food in conjunction with identity has considered the possibility that the way people engage with food itself can be indicative of a unique identity (the only exception I found was Bisogni et al. 2002). Second, I differentiate further from the previous investigations by focusing on how people chronically approach food decisions and situations to organize their lives, rather than using food choices specifically as the basis of identity or expression of identity

2.1.3 How I Define Food Identity

I define food identities as a self-conception organized around a set of consumption priorities, consistent with other social-cognition-oriented definitions of the self (Aquino and Reed 2002; Brewer and Gardner 1996). Thus, while I believe that food identities are linked to specific consumption priorities, a person's food identity may also be based on the distinct mental images people may have about how individuals with these consumption priorities choose, behave, and think (Kihlstrom and Klein, 1994). This means that, although food identity is rooted in an individual, orientation-based conceptualization, a person's food identity may be based on a real membership group (e.g., Foodies), a known individual (e.g., your grandmother), an unknown individual (e.g., the Pioneer Woman), an abstracted ideal, (e.g., a food connoisseur)—or any other social construction. Critically, what matters is that individuals attempt to see the world in

terms of the implications of their consumption priorities linked to that social construction, and that the individual has adopted their food identity as part of his or her social self-schema (Aquino and Reed 2002; Oyserman 2007; Reed 2002).

In my view, this definition of food identity, building from Reed et al.'s 2012 identity framework, is desirable as it relaxes the assumption that identities must be indexed to a specific group of individuals. Therefore, I do not believe that I need to define food identity as a social or personal identity as these are essentially the same concept. The key distinction for food identities here is not whether the identity has its origin in a social or personal sphere, but rather how individuals process feedback about food identities in their "reflected appraisal" of their behavior (Laverie, Kleine, and Kleine 2002).

To empirically establish the existence of food identities, and to measure the predictive value of these food identities, I focus on two chronic consumption priorities as the basis of food identities: The extent to which an individual uses food for their individual or communal priorities, and the extent to which consumption situations are used to achieve their utilitarian or hedonic priorities. I focus on these two sets of priorities because of prior research and empirical data that shows that many people base their food identities in part, through these priorities (Pilot Study 1).

2.1.3.1 Individual-Communal Priorities

First, past research has highlighted that the extent to which one considers themselves connected to or disconnected from others is a critical part of their identity. For example, individuals may take a more individualistic or collective stance toward the world (Triandis et al. 1988), may identify strongly or weakly with others in social groups (Brewer 1979), and may hold specific

identities that involve connections to others (e.g., mother, wife; Deaux et al. 1995; Epp and Price 2008) or that emphasize their individual achievements and goals (athlete, volunteer; Reed 2004).

Similarly, research has argued that food consumption is hard to understand without recognizing the social context in which it occurs. Prior work has shown that the number and nature of others physically present while eating can make a difference in the amount eaten and the choice of what to eat (Ariely and Levav 2000; Dzhogleva and Lamberton 2014; McFerran et al. 2010; Ratner, Kahn, and Kahneman 1999). Qualitative research has shown that people—when recalling their most memorable and enjoyable meals—appear to focus on the social setting and social interactions more than the taste of the actual food consumed (Kniazeva and Venkatesh 2007). Additionally, Belk (1988) discusses how the ritualistic nature of sharing food (e.g., during a dinner party) is a way of sharing group identity as food is so ingrained into the self; subsequently all food sharing is a symbolic way to connect to others.

It is equally essential to understand how solitary consumption is processed by consumers on the other end of the individual-communal consumption priority spectrum. People often eat meals alone, sometimes through choice and sometimes through necessity, same as social eating. For people eating alone, food may be more about the efficient value of food in the moment (i.e., fulfill hunger, save time, alleviate boredom) or about the individual pleasures that can be gained from eating alone without having to focus on social obligations that may decrease the enjoyment from the food experience (Neimark 2015; Rozin et al. 1999; Schlosser 2012). As there is a rising acceptance encouraging a rise in dining alone at home and at restaurants there has been a 62% increase in solo reservations in the last couple of years (Ferdman 2015; Potter 2015). Additionally, research on food identities has found that people often discussed their food identities in terms of their social or private consumption nature (Bisogni et al. 2002).

2.1.3.2 Utilitarian-Hedonic Priorities

Second, past research suggests that consumers also chronically vary in their tendency to prioritize more hedonic (i.e., experiential or pleasure oriented; Hirschman and Holbrook 1982) or more utilitarian (i.e., functional or practical; Strahilevitz and Myers 1998) offerings. Consumers vary in the hedonic and utilitarian value they place on products and experiences (Babin, Darden, and Griffin 1994; Batra and Ahtola 1990; Dhar and Wertenbroch 1999; Mano and Oliver 1993; Shiv and Fedorikhin 1999; Wertenbroch 1998).

Utilitarian and hedonic foci have previously been shown to affect different cultural perceptions and behaviors. For example, the French focus on the pleasure involved with the food consumption experience (i.e., tasting and experiencing food) while Americans are more likely to solely consider the health of food (i.e., calories, fat; Rozin et al. 1999). This focus can shape the associations individuals have with the same food and highlight differing priorities that guide consumers. For example, people in the US associated heavy cream with “unhealthy” while the French associated it with “whipped” (Rozin 2005).

Indeed, it appears that a segment of consumers consider food mostly in terms of the utilitarian value it can provide. The rise in functional foods showcases the desire consumers have for their food consumption experiences to increase health while leaving taste unaffected (Naylor, Droms, and Haws 2009). In this paper, consumers who prioritize utilitarian function in their foods are those who value some functional aspect of food; this can mean the food’s health, food convenience, price, etc. On the other hand, other segments choose foods to further their hedonic wants (Rozin 2005). According to a webinar on 2016 food trends by the SuperMarket Food Guru, many consumers look for food “experiences” as their taste buds are bored with the status-

quo (Sarasohn-Kahn 2016). Hedonic dining for these consumers is not solely about hedonic foods (i.e., unhealthy and tasty; Raghunathan et al. 2006); instead a hedonic priority is on “experiencing” and enjoying food; separate from a food’s health, or lack of health value.

Considering this, I believe that the food chosen does not necessarily define how people prioritize functionality and pleasure in their eating experiences. I believe that it’s the approach to food (searching for something functional or practical or searching for something pleasure-inducing or experiential) that matters for this priority underlying peoples’ food identities.

2.1.4 Food Identities Compared to Other Expressions through Food

While research has looked at the role of food as a means of self-expression relative to an in-group or outgroup (Berger and Rand 2008; McFerran et al. 2010; White and Dahl 2006; Wooten 1995), the literature has primarily focused on what people choose to consume to accomplish different food-related goals. For example, research has repeatedly asked consumers to choose a piece of cake or a salad, a classic battle of health versus indulgence (Giner-Sorolla 2001; Shiv and Fedorikhin 1999). Other research has focused on how consumers make food decisions for the sake of impression management (Herman, Roth, and Polivy 2003; Vartanian 2015), or social norms (Leary and Kowalski 1990; Roth et al. 2001).

My conceptualization of food identity does not contradict other explanations for food decision-making. I propose that an understanding of food identities compliments the currently existing research by identifying another social-psychological motivator for food-related decision-making. As identities include procedural knowledge and goals (Markus and Oyserman 1989; Oyserman 2009), I propose that for some people, during salient or relevant experiences (e.g., picking a restaurant, viewing food-related messaging, or eating a meal), that the procedural

knowledge and goals (operationalized as consumption priorities) that make up food identities will be relevant and influential for decision-making.

To illustrate what I mean, I will take the example of why someone would choose to consume healthy food. The choice to be healthy may be a consequence of another identity or goal. For a “dieter,” research has shown that specifically “healthy” framing (e.g., salad instead of pasta) will influence healthiness as the goals related to the dieting identity become more salient (Irmak, Vallen, and Robinson 2011). On the other hand, for someone who has suffered health issues, the choice to be healthy may be removed from held-identities, and instead, may be driven solely by physical needs and goals (i.e., to stay healthy to stay alive). If someone has a food identity that is based in their utilitarian consumption priorities, healthy choices could be identity-relevant if food is described through its functionality to the self (e.g., food to fuel you). This focus on the food’s functional value to the self should increase the salience of this food identity, and consequently, choice may be influenced by the consumers’ food identity.

2.1.5 Overview of Studies

I propose that some individuals have chronic and stable food identities separate from contextual food-related goals, other food tendencies, and other identities. I present seven studies that showcase that food identities exist, people can recognize their identities, that these identities are different from other measures of food behavior and attitudes that exist in the literature, and are relevant identities for decision-making. First, two pilot studies were conducted where people organically discussed their food identities. I discovered that the individual-communal and utilitarian-hedonic consumption priorities people have covers the basis of many of peoples’ currently-held food identities. I additionally find that people believe their food identities to be stable, central, and important to the self—and critically, different from their contextual food-

related goals. Considering this, I develop a four-item food identity measure that, through combinations of peoples' consumption priorities, highlights four different food identities that can exist based on these two consumption priorities. In Studies 1A and 1B, I differentiate food identity from previously measured food behavior scales (e.g., the Dutch Eating Behavior Questionnaire) and food orientations (e.g., vegetarianism) and show that the priorities underlying food identity are distinct to these identities (vs. being overarching priorities that exist across domains and identities).

Studies 2, 3, and 4 test the predictive validity of food identities across the dimensions of choice of restaurant gift card (Study 2), purchase intentions and attitudes towards advertisements (Study 3), and consumption amount (Study 4). In each of these studies, I show that people's food identities influence choices, behaviors, and attitudes in identity-relevant domains. If my theory holds, identity-relevant moderators should be effective in influencing the predictive value of food identities. Therefore, using the identity principle framework (Reed et al. 2012), I consider identity-relevant situations and moderators that either strengthen (i.e., identity-strength) or attenuate (i.e., identity-salience) the predictive effect of food identities. Across these studies I attempt to rule out possible alternative explanations such as other existing food behavior measures such as dieting-specific self-control and restrained eating.

2.1 PILOT STUDY 1: TRAIT IDENTIFICATION OF FOOD IDENTITY

To measure food identity as I define it, it is first necessary to identify a set of priorities that organically come to mind that can reliably invoke this identity. Therefore, my pilot study

provided participants with a brief idea of the conceptualization of food identity, and asked them to organically discuss the different priorities, attitudes, traits, and behaviors that came to mind when thinking of their own existing food identities.

2.2.1 Method

In my pilot study I sought to identify a set of priorities that many people consider to be characteristic of their food identities. I did this by prompting Amazon Mechanical Turk participants ($n = 372$, $M_{\text{age}} = 35$ years, $M_{\text{BMI}} = 26.33$, 55% women) to write about their food identities in open-ended responses.

Participants read about what an identity is and were told that I was interested in peoples' food identities. They read about some examples of possible food identities (e.g., someone with an "Everyone's Grandma" identity might use food as a way to draw people together while someone who refers to themselves as a "Power Eater" may eat mostly for the energy that food gives them) and were told that in the survey they would be asked to think of their own food identity. Participants were reminded that identities have implications for "how you see yourself, who you associate with, your priorities, attitudes, and behaviors," and were asked to brainstorm how they "choose and utilize food" in their lives. They were asked to describe the type of person they are, and describe how they engage with food, prioritize food, and utilize it in their lives as fully as possible. They were also told that they could use concrete stories or abstract discussions; whatever helped them feel most confident in describing their food identity.

Afterwards, I had two outside coders who were unaware of any of my predictions identify the most prevalent priorities, traits, behaviors, and attitudes that were discussed in-line with peoples’ food identities (see Appendix A for all instructions participants were shown).

2.2.2 Results

Coded results (ICC = .75) identified five overarching food identity priority categories in the open-responses: individual priorities, communal priorities, utilitarian priorities, hedonic priorities, and health/restriction priorities (a full list of categories collected in this study across these categories is included in table 1). Items and categories were chosen through a combination of self-generated terms that were determined by the researchers from prior research and theory and concepts/terms found by the coders that were added. Additionally, other notes about outside identities or other associations between the self and food were also recorded, though those are outside the scope of the determination of priorities to focus on for food identities specifically.

Table 1: Categories and Items Coded from the Open-Responses

Individual	Communal	Utilitarian	Hedonic	Health/ Restriction	Other Attributes
Individual	Communal	Food as Fuel	Taste Focused	Health/ Nutrition	Cooking/ Creating
Practical	Social	Functional	Focused on senses	Restriction	Other Identities (e.g., ethnic, gender)
Independent	Family	Means to an end	Food for Pleasure	Self-control	Specific Food as Descriptor
Self-oriented	Love	Necessity	Comfort Focused	Diet	Memory associations
Private	Bring people together	Power	Indulgence	Goals	Ethics

To ensure that the consumption priorities I found are the basis of food identities for a reasonable part of the population, moving forward, I focus only on the priorities that a reasonable

percentage (at least 30% of the sample; based on Aquino and Reed's 2002 procedure) of respondents identified as being relevant to their food identity. This left me with four priorities to focus on moving forward: individual priorities, communal priorities, utilitarian priorities, and hedonic priorities; health and restriction was not a relevant identity priority for 30% of respondents² (see figure 1 for percentages and Appendix B for examples that were coded as being representative of each consumption priority).

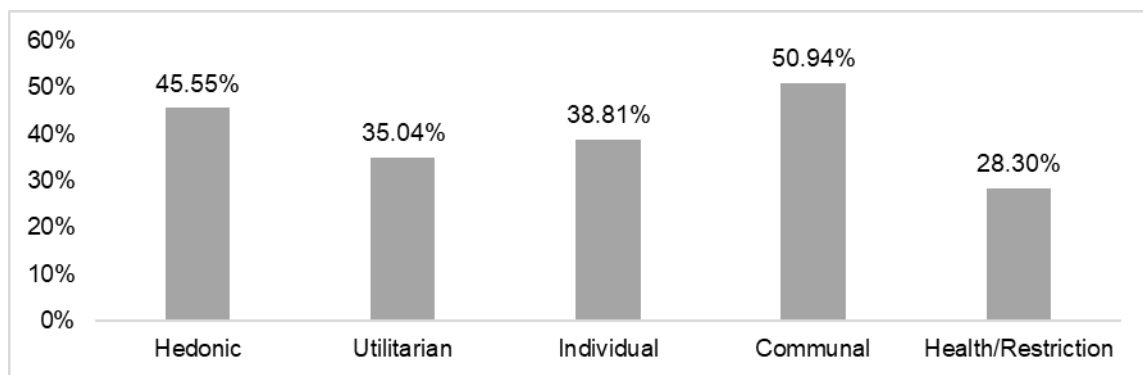


Figure 1: Percentage of Responses that Mentioned Consumption Priorities as Part of Food Identity

2.2.3 Discussion

In this study, I found four consumption priorities that were naturally underlying peoples' existing food identities when examining open-response discussions of their currently held food identity. While acknowledging that these four consumption priorities are not be exhaustive of peoples' food identities, when considering my definition of food identity, I believe that the complete set of consumption priorities that could possibly make up a person's unique food identity do not need to be identified to invoke their food identity. I believe that as long as I have some of the priorities that makes food identity salient, individuals will be able to imagine their other

² Participants on average mentioned 3.12 terms or phrases that were coded as being relevant to these consumption priorities. Only 30 out of 372 participants (8%) had no mentions of any of the four priorities.

consumption priorities that make up their food identities. This assumption is backed up by prior empirical evidence that tapping into only some stimuli can invoke a broader associative network of related traits and increase the salience of an identity (Chatman and von Hippel 2001; Hong et al. 2000).

Next, in Pilot Study 2, I focused on determining operationalizations for each of the consumption priorities to utilize in a food identity measure that would invoke peoples' food identities. As well, I examined whether peoples' food identities meet key components of identity (e.g., being central, important, and stable to the self).

2.3 PILOT STUDY 2: VALIDATING PRIORITIES UNDERLYING FOOD IDENTITIES

In this study, I wanted to determine terms to use as operationalizations for the consumption priorities identified in Pilot Study 1 (i.e., individual, communal, utilitarian, and hedonic). In this study, I wanted to not only find operationalizations of each of these priorities, but I wanted to find operationalizations that were orthogonal to one another to provide validity to these being opposing ends of priority spectrums (e.g., the term representing an individual priority needed to be orthogonal to the term that represented a communal priority). In this study, I additionally collected information on how central, stable, and important people find their food identities to be, as these are shown to be key components to identity (Reed 2004; Reed et al. 2012).

2.3.1 Method

Participants (Amazon MTurk, $n = 402$, $M_{\text{age}} = 36$ years, $M_{\text{BMI}} = 26.34$, 51% women) were presented with a list of different terms and phrases reflecting the four overarching consumption priorities identified in Pilot Study 1. Participants were asked to indicate on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) the extent to which they believed the term described their food identity, which was phrased as “possible terms that may be used to describe a person specifically in regard to how they use food to express themselves, and priorities they hold regarding food.”

I included twenty-six terms that could possibly exemplify one of the underlying consumption priorities. These were taken from the open-response formats and were tested to determine which operationalization best represented the individual-communal, and utilitarian-hedonic priorities people hold in conjunction with their food identities. For the individual priority, I had terms such as pragmatic, independent, and private. For the communal priority, I had terms such as social, communal, and family oriented. For the utilitarian priority, I had terms such as functional, food as fuel, and food for necessity. For the hedonic priority, I had terms such as food for pleasure, gratification, and taste focused (all terms tested are included in Appendix C).

Additionally, in this study I asked participants to consider how strong, central, and stable their currently held food identities are. These were all measured on 1 – 7 Likert scales with endpoints relevant to the question where lower scores meant less identity value/less difference while higher scores meant more identity value/greater difference between their identity and food

goals (see Appendix D for these questions). I also asked consumers whether these food identities differ from their food-related goals.

2.3.2 Results

2.3.2.1 Correlation Analyses

To determine which term would be used to operationalize each consumption priority (i.e., individual priorities, communal priorities, utilitarian priorities, and hedonic priorities) moving forward, I conducted three separate analyses.

The first analysis I ran was one-sample t-tests comparing responses to each term to the scale midpoint (a four on a one to seven Likert scale). These one-sample t-tests revealed which terms were considered as positively and significantly self-descriptive from each consumption priority category (i.e., individual, communal, utilitarian, and hedonic priorities) that I would then use in my next analysis. Unsurprisingly, as these terms were all taken directly from the open-responses describing food identities in Pilot Study 1, I found that all of the twenty-six terms tested, except for two of them (i.e., loner as representative of peoples' individual consumption priority and hedonist as representative of peoples' hedonic priority), were considered positive and significant in describing the self in terms of their food identity compared to the mean (all $p < .024$).

In my next analysis, using the remaining twenty-four terms, I ran correlations on each of the remaining terms comparing them to the terms that represented the opposite consumption priority (i.e., terms representing the individual priority were compared to the terms that represented the communal priority). This analysis was essential as I needed to not only find

terms that could encompass each end of peoples' consumption priorities, but I needed them to be orthogonal to the opposing priority.

I ran these correlations on the remaining terms and found that the terms of private, social, food for fuel, and food for pleasure best represented the individual priorities, communal priorities, utilitarian priorities, and hedonic priorities respectively. These terms were chosen as they were rated as being self-descriptive and were statistically orthogonal when compared to the opposite consumption priority. Having a private consumption priority was negatively and significantly correlated with having a social consumption priority ($\beta = -.254$; $p < .001$), while having a priority of using food for fuel was negatively and significantly correlated with a priority on using food for pleasure ($\beta = -.140$, $p = .005$) showcasing orthogonality across the spectrum of priorities.

My last analysis to determine whether these four terms were acceptable to cover the individual-communal and utilitarian-hedonic priorities underlying peoples' food identities was to combine these terms into four possible food identities (i.e., private-fuel, private-pleasure, social-fuel, and social-pleasure). These four combinations include food identities that differ across all four consumption priorities (see figure 2 for a representation of the labels I place on these food identities as they relate to peoples' consumption priorities).³

³ The names I have provided for these food identities are just illustrative of the terms chosen of the priorities underlying the food identities. I believe that people may have different self-labels for their food identities in conjunction with these consumption priorities. I also believe that people may have other food identities not necessarily covered by these consumption priorities, and thus do not provide labels outside of simple identifiers for comprehension.

	High Individual Importance	High Social Importance
High Utilitarian Importance	Private-Fuel	Social-Fuel
High Hedonic Importance	Private-Pleasure	Social-Pleasure

Figure 2: Operationalization of Consumption Priorities and Food Identities

These terms were calculated using the different scores people gave on each chronic consumption priority. Specifically, high scores (e.g., four or higher on a one to seven Likert scale) on both terms within the food identity (e.g., private and food for fuel), along with low scores on the opposite consumption priorities (e.g., below a four on the self-importance for both social and pleasure priorities) were used to categorize food identities. I use a similar strategy across studies to determine peoples' food identities and to determine whether participants saw identity-congruent or incongruent stimuli (see Appendix E for further information about this identity-congruent variable across studies).

The correlation results for these identities as compared to the initial consumption priorities and compared to the other food identities (again to determine orthogonality) are included in table 2.1 and table 2.2.

Table 2.1: Correlations between Food Identities and Each Consumption Priority

Food Identity	<u>Observed Correlation</u>			
	Individual	Communal	Utilitarian	Hedonic
Private-Fuel (PF)	.654***	-.119*	.423**	-.040
Private-Pleasure (PP)	.608***	-.038	.052	.404***
Social-Fuel (SF)	-.113*	.578***	.497***	-.051
Social-Pleasure (SP)	-.252***	.694***	.005	.537***

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2.2: Correlations between Food Identities

Food Identity	Observed Correlation			
	PF	PP	SF	SP
Private-Fuel (PF)	1	.206*	.160**	-.281***
Private-Pleasure (PP)		1	-.169**	.069
Social-Fuel (SF)			1	.154*
Social-Pleasure (SP)				1

* $p < .05$. ** $p < .01$. *** $p < .001$.

2.3.2.2 Food Identity Centrality and Importance

Considering the participants' currently held food identities, I ran one sample t-tests comparing their responses on the perceived centrality, strength, importance, stability, and differences to held food-goals of their food identities to their scale midpoints (i.e., a four on a one to seven Likert scale for each of these items). These one-sample t-tests reveal that participants believe that their food identities are central to the self ($M_{\text{central}} = 4.71$, $SD_{\text{central}} = 1.49$; $t = 5.57$, $p < .001$), strongly held ($M_{\text{strength}} = 4.80$, $SD_{\text{strength}} = 1.28$; $t = 6.39$, $p < .001$), self-important ($M_{\text{important}} = 4.32$, $SD_{\text{important}} = 1.53$; $t = 2.29$, $p = .023$), stable ($M_{\text{stable}} = 4.92$, $SD_{\text{stable}} = 1.53$; $t = 7.09$, $p < .001$), and critically, different than their food-related goals ($M_{\text{different}} = 4.30$, $SD_{\text{different}} = 1.60$; $t = 2.16$, $p = .033$).⁴

2.3.3 Discussion

The results of Pilot Study 2 are twofold. The first is that this pilot provided me with four terms that act as operationalizations of the consumption priorities that were determined through prior research and Pilot Study 1 as being relevant to peoples' food identities. Therefore, moving

⁴ I found no gender differences (all $p > .10$). Age marginally and positively predicted identity strength and importance (both $p < .10$). BMI significantly and positively predicted that peoples' food identities differed from their food goals ($p = .01$).

forward, these terms (i.e., private-fuel, private-pleasure, social-fuel, and social-pleasure) will be how I operationalize and label food identities that exist across the individual-communal and utilitarian-hedonic priorities. I note that these are only four possible food identities and I do not believe them to be exhaustive of all types of food identities that individuals may have.

Second, in this pilot, I determined that individuals' food identities are considered central, strong, important, stable, and different from their held food-goals. These measures provide additional confidence that I'm tapping into the underlying priorities of identities, rather than personality traits through these measures. In the next study, I delve further into comparing food identities (as determined by the four combinations of these consumption priorities) to existing food behaviors, traits, and personalities.

2.4 STUDY 1A: ESTABLISHING CONSTRUCT VALIDITY

In study 1A, I sought to establish construct validity for the four types of food identities I am examining, as captured in my preliminary four-item measure. I did this by comparing the food identities to non-identical, but nomologically-relevant constructs, as well as to other food-related measures. Three separate samples were collected for this study. As well, I ran k-means analyses across these samples and conducted test-retest reliability analysis on one of my samples to further validate these measures of food identity. Across all three samples, the order of measures was randomized.

2.4.1 Method

2.4.1.1 Sample One

Four hundred and two people participated in this survey through Prolific Academic's online site for a nominal payment ($M_{\text{age}} = 35$ years, $M_{\text{BMI}} = 26.83$, 52% women). In this first sample I compared the four food identities (as determined by my food identity measure: See Appendix F for this measure and Appendix E for how the four food identities were calculated) to the Food Choice Questionnaire (FCQ; 9 factor scale; Steptoe, Pollard, and Wardle 1995), the Dutch Eating Behavior Questionnaire (DEBQ; 3 factor scale; Van Strien et al. 1986), a modified dieting specific self-control measure (adapted from the self-control scale in Haws, Bearden, and Nenkov 2012; exact wording of this modified scale in Appendix G), the Cognitive Behavioral Dieting Scale (CBDS; Martz, Sturgis, and Gustafson 1996), Epicurean Eating (2 factor scale; Cornil and Chandon 2016), the Food Involvement Scale (Bell and Marshall 2004), and the Health Consciousness Scale (3 factors; Gould 1988).

2.4.1.2 Sample Two

Six hundred and three people participated in this survey through Amazon MTurk for a nominal payment ($M_{\text{age}} = 38$ years, $M_{\text{BMI}} = 26.87$, 45% women). In this sample I again compared my four food identities to several different scales. These constructs were different from those in Sample 1. I included a modified scale that measured people's propensity to be food leaders or food seekers in consumption experiences (Flynn, Goldsmith, and Eastman 1996; exact wording of this modified scale in Appendix G), the independent and interdependent self-concept scales (Singelis 1994), the shortened individualism-collectivism scale (Hui and Yee 1994), a scale measuring

hedonic and utilitarian attitudes towards products/brands that I had phrased for participants to focus on their attitudes towards food and having meals (Voss, Spangenberg, and Grohmann 2003), frugality (Lastovicka et al. 1999), and the Three Factor Eating Questionnaire (TFEQ; 3 factor scale; Stunkard and Messick 1985). I also examined relationships between demographic factors (i.e., gender, age, BMI, race, education, and household income⁵), some possible eating orientations and behaviors (e.g., picky eating, eating for comfort, variety seeking), and peoples' food identities.

2.4.1.3 Sample Three

Two hundred and four people participated in this survey through Amazon MTurk for a nominal payment ($M_{\text{age}} = 35$ years, $M_{\text{BMI}} = 27.83$, 45% women). In this sample, participants answered my food identity measure and answered how much certain food descriptions accurately represented them using a Likert scale (1 = “not accurately at all” to 5 “extremely accurately”). These food descriptions included items such as being kosher, vegetarian or vegan, a dieter, a baker, and more (all items and established scales from all three samples are included in table 3).

2.4.2 Results

2.4.2.1 Validity Tests across Samples

The assessments across convergent, nomological, and discriminant validity were performed on both Sample One and Sample Two comparing each of the four distinct food identity indices to each of the other scales. In general, the pattern of results was in line with my hypotheses.

⁵ These demographics were collected and compared in each sample, however, as the patterns were similar in each sample, this is the only samples' correlations reported in the table.

Importantly, measures used to validate the core food identity priorities (e.g., the Independent-Interdependent scale, and the Hedonic-Utilitarian scale modified for food scenarios) correlated as expected, (all $p < .001$) and none of these food identities were strongly correlated with the measures commonly used in food decision-making literature (i.e., restrained eating, dieting behavior, and health-consciousness; all $p > .05$).

In Sample Three, I found that food identities were mostly unrelated to the eating behaviors and orientations I tested. Certain orientations such as being a dieter, kosher, or vegetarian were not correlated with any of the food identities (all $p > .05$) while other behaviors such as being a baker or amateur cook correlated with the food identities that have a social-priority (both $p < .05$).

Across these samples, I found some interesting correlations that provide further insight into these food identities and provide avenues for future research (see the General Discussion for further future research ideas based in part on correlations that I found across food identities and different behaviors across the three samples). One example was between the different types of “functional values” that were collected and their positive correlations to the private-fuel identity (e.g., mood, convenience, price, and familiarity; all $p < .05$) as it highlights the variability to peoples’ food identities that can be encompassed through these consumption priorities. The full set of correlation results between food identities and other studied food orientations, behaviors, and demographics across the three samples are detailed in table 3.⁶

⁶ Note that in the table, the significance recording is that * represents $p < .05$, ** represents $p < .01$, and *** represents $p < .001$.

Table 3: Correlations across Samples

Comparison Measure	Observed Correlation			
	PF	PP	SF	SP
FCQ: Health	.016	-.038	.168*	.095
FCQ: Mood	.211**	.307***	.018	.140*
FCQ: Convenience	.151*	.085	.023	-.031
FCQ: Sensory appeal	-.041	.142*	.088	.270**
FCQ: Natural content	.071	.049	.135	.042
FCQ: Price	.179*	.086	.020	.083
FCQ: Weight control	.118	.118	.096	.010
FCQ: Familiarity	.165*	.034	.068	.128
FCQ: Ethical concern	.095	.048	.031	-.089
DEBQ: Restrained	.041	.046	.090	.108
DEBQ: External	-.005	.298***	.069	.229***
DEBQ: Emotional	-.006	.172*	-.019	.019
Dieting Self-Control	.158*	.026	.069	-.003
CBDS	.059	.069	.010	.026
Epicurean Eating: Pleasure	.010	.216***	.034	.383***
Epicurean Eating: Supersize	.113	.166**	.073	.106
HC: Behavior	.101	.104	.078	.032
HC: Information Seeking	.101	.082	.142	.082
Food Involvement	-.006	.154*	.102	.294***
Independent Focus	.065	.059	.132	.090
Interdependent Focus	.012	.036	.186**	.217**
Individualism	.212**	.220**	.136	.079
Collectivism	.056	.117	.172*	.188**
Opinion Leaders (Food)	.181*	.146*	.072	.079
Opinion Seekers (Food)	.124	.087	.218**	.193**
Hedonic	.042	.288***	.118	.399***
Utilitarian	.168**	-.019	.363***	.098
Frugality	.056	.029	.126	.103
Picky Eating	.152*	.015	.057	.030
Variety Seeking	-.051	.166**	.035	.180**
Comfort Focused Eating	-.030	.095	.130*	.206**
TFEQ: Cognitive Restraint	.204**	.059	.163*	.060
TFEQ: Disinhibition	.075	.233**	.051	.144*
TFEQ: Hunger	.014	.199**	.024	.125
Kosher	-.009	.024	.017	.004
Vegetarian/vegan	.021	-.034	-.047	-.098
Pescatarian	.028	-.028	-.060	-.132
Gluten-free	-.010	-.029	-.004	-.029
Slow-movement eater	.080	-.028	-.087	-.162*
Dieter	.099	.045	.073	-.023
Restrained eater	.050	-.078	-.005	-.140*
Health-conscious eater	.152*	-.080	.235**	-.031
Chef	.038	.109	.081	.120
Baker	-.188*	-.081	.072	.165*
Amateur Home Cook	.050	.019	.172*	.110
Gender	-.053	-.037	.070	.194***
Age	-.024	-.002	.007	.027
BMI	-.021	.109**	.011	.056
Household Income	-.032	-.041	.062	.009
Race	-.006	-.020	.044	.015
Education	-.024	-.006	.007	.016

2.4.2.3 Test-Retest Reliability

In Sample 2, participants were re-contacted a week after they initially filled out the survey. From the original sample, five hundred and eighteen participants ($M_{\text{age}} = 37$ years, $M_{\text{BMI}} = 26.36$, 48% women) responded to my second survey invite where they again answered my food identity measure to determine the stability and longevity of their consumption priorities and subsequent food identity. I found test-retest reliabilities of .82, .89, .86, and .84 for private-fuel, private-pleasure, social-fuel, and the social-pleasure food identity emerged respectively across the two occasions, supporting the idea that these food identities are fairly stable and chronic.

2.4.2.4 K-Means Clustering

I performed a k-means clustering on each of the three samples to confirm that each food identity was properly populated. Across the four food identities (i.e., private-fuel, private-pleasure, social-fuel, social-pleasure) each was fairly equally populated. In each sample, only 15% or less of participants could not be classified into any of the four identities. These populations are recorded in table 4.

Table 4: K-Means Clustering Counts

Sample	PF	PP	SF	SP	No Match
Sample 1	89	81	88	91	53
Sample 2	132	146	139	134	52
Sample 3	42	48	45	40	31

2.4.3 Discussion

In this study I established construct validity for the different food identities we are examining relative to non-identical, but nomologically-relevant constructs, as well as to other food-related

measures. I additionally showed that these food identities appear to be chronic and stable (through test-retest analysis) and that these examples of different types of food identities are all well represented while not being exhaustive of all possible food identities (through k-means analyses). In the next study, I highlight that these consumption priorities are specific to peoples' food identities by comparing these priorities across multiple possible identity-relevant domains.

2.5 STUDY 1B: FOOD IDENTITY PRORITIES ARE SPECIFIC TO FOOD IDENTITY

In Study 1B, I test for the specificity of hedonic-utilitarian and individual-social priorities with respect to food decision-making. Importantly, I wanted to determine whether my food identity measure was mapping onto the priorities underlying peoples' food identities, or priorities individuals may hold in general that extend to other scenarios and possible identities.

2.5.1 Method

Every day for one week, one hundred and forty-six Amazon MTurk workers participated in this survey for a nominal payment ($M_{\text{age}} = 36\text{years}$, $M_{\text{BMI}} = 27.35$, 47% women)⁷. Participants answered the same questions about a different possible identity (i.e., education identity, work identity, exercise identity, entertainment identity, and critically food identity) every day for five days straight.

Using the same prompt as my food identity measure (see Appendix F), participants were asked about their relationship with food [education, work, exercise, entertainment] such that they

⁷ I started with 200 participants. People dropped out at different points across the five days. No demographic differences existed among those that dropped out and those included in the analysis.

were told that they'd see a "list of terms that may be used to describe a person specifically in regard to how they use food [education/work/exercise/entertainment] to express themselves, and priorities they hold regarding food [education/work/exercise/entertainment]." They were asked to rate each term on how well it described them and their priorities for that identity domain. The terms listed were private, social, food [education/work/exercise/entertainment] for fuel, food [education/work/exercise/entertainment] for pleasure. This was a four-item measure on a Likert scale (1 = "strongly disagree" to 7 "strongly agree"). In addition to this measure, participants answered basic demographic items.

2.5.2 Results

I ran correlations on how well food identities (i.e., private-fuel, private-pleasure, social-fuel, and social-pleasure) correlated with these same "identities" in the other identity domains of education, work, exercise, and entertainment. Importantly, I found that individuals' consumption priorities often diverge from their prioritization of these elements in other aspects of their lives (all results in table 5). Thus, these results suggest that food identity does not tap into an underlying chronic goal orientation that manifests in all identities, but rather, captures food-specific priorities.

Table 5: Correlations across Identity Domains

Comparison to Other Identity	Observed Correlation			
	PF (Food)	PP (Food)	SF (Food)	SP (Food)
PF (Entertainment)	.212*	.146	.126	.035
PP (Entertainment)	.175*	.135	.137	.089
SF (Entertainment)	.002	.035	.178*	.129
SP (Entertainment)	.053	.056	.130	.155
PF (Work)	.209*	.068	.079	.024
PP (Work)	.099	.133	.105	.031
SF (Work)	-.035	.107	.187*	.049
SP (Work)	-.015	.043	.110	.163*
PF (Education)	.071	-.038	.168*	.139
PP (Education)	.152	.118	.018	.059
SF (Education)	.140	.155	.023	.134
SP (Education)	.110	.135	.088	.156
PF (Exercise)	.153	.147	.123	.178
PP (Exercise)	.116	.244*	.104	.087
SF (Exercise)	.027	-.009	.152	.145
SP (Exercise)	-.024	-.077	.140	.217*

* $p < .05$. ** $p < .01$. *** $p < .001$.

2.5.3 Discussion

Thus far, my studies have established that people believe they have food identities that are central, strong, important and stable to their self-conception. I have additionally provided evidence that people believe their food identities are separate and distinct from other food-related goals they may have as well as distinct from other identities and have developed a food identity profile measure that can be used to understand individuals' priorities in this domain. In the following three studies I explore the predictive nature and behavioral outcomes of these identities, considering identity-relevant situations and identity-relevant moderators and boundaries to my effect.

2.6 STUDY 2: FOOD IDENTITIES INFLUENCE RESTAURANT CHOICE

In Study 2, I provide evidence that food identities can predict consumers' choices in systematic ways. I predict that messaging that is congruent with individuals' food identities should be more effective in shaping consumer's decisions than comparable messaging that is incongruent with individuals' food identities (Klesse et al. 2012; Richins 1991).

Specifically, in the context of this study, I predicted that the choice of a restaurant gift-card will be influenced by its perceived congruence to peoples' food identities (i.e., preference for identity-congruent vs. identity-incongruent restaurants) as choice has been shown to be a way for consumers to express and validate identities (Berger and Heath 2007; Escalas and Bettman 2005; Oyserman 2009). Importantly, identity-consistency is seen as a key component of identities, and thus, consumers should be attracted to options that are consistent and congruent to their food identity (Oyserman 2009; Reed 2004; Reed et al. 2012).

2.6.1 Method

Four hundred and one participants from Amazon MTurk participated in this survey for a nominal payment ($M_{\text{age}} = 35$ years, $M_{\text{BMI}} = 26.31$, 50% women). Participants first saw in a randomized order, four real restaurant slogans. Restaurants were initially mentioned by a sample of participants as well-liked places that were then coded by another separate sample as being representative of each of our four food identities (as determined by the focus on consumption priorities underlying food identities; see Appendix H restaurant slogan stimuli).

After viewing all four restaurant slogans, participants were told that one participant would be chosen to win a \$25 gift-card to the restaurant of their choice. They were then asked to choose the restaurant for which they would want to receive a gift-card if they were to win. Afterwards, participants answered control questions regarding their familiarity, liking, and physical proximity to these restaurants, along with an item regarding the perceived health of these restaurants. Afterwards, in randomized order, participants answered the four-item food identity measure, the modified dieting self-control measure, the health-consciousness scale (both health-conscious behavior and information seeking subscales), and the restrained eating subscale from the DEBQ before answering standard demographic items.

2.6.1.1 Identity-Congruency

All participants saw each of the different restaurant slogans and answered the food identity measure. Therefore, to determine whether people chose to receive a gift-card for the most identity-congruent restaurant, I created variables to represent peoples' food identity match. Using the different scores people gave on each chronic consumption priority, people were categorized as existing within one of the four possible combinations of food identities or were found to have no identity match. This created four different food identity variables, each coded as 1 if the person was categorized as holding that food identity, and 0 if that person was categorized as not holding that food identity (further details in Appendix E).⁸

⁸ 21% of the sample held a private-fuel identity, 28% held a private-pleasure identity, 20% held a social-fuel identity, 26% held a social-pleasure identity, and 5% who did not hold any of the food identities.

2.6.2 Results

I hypothesized that choice of the gift card for the restaurant would be predicted by peoples' food identity. Specifically, if someone holds a private-fuel identity, they should be more likely to choose a gift-card to the identity-congruent restaurant (i.e., the private-fuel restaurant). I believed that this identity-congruence between participants' held food identity and restaurant consumption priorities (as determined by their slogans) would significantly influence choice more than other factors such as the perceived healthiness of the restaurants, restrained eating, dieting-specific self-control, and health consciousness (behavior and information seeking). I also included peoples' demographic information (gender, age, and BMI), along with possible control variables such as their familiarity with the restaurant, their general liking of the restaurant, and their physical proximity to a restaurant location.

To test this, I estimated four logistic regressions; one for each restaurant choice of gift card (0 = did not choose, 1 = chose the restaurant) by the four food identity match variables, and the different comparison and control variables mentioned. I found a similar pattern of results across restaurants (see table 6 for regression outputs across analyses). Having a food identity that was congruent to the food identity represented by the restaurant slogan significantly, and positively, predicted choice.

2.6.2.1 Private-Fuel

Choice of the private-fuel restaurant gift-card was significantly predicted by the private-fuel identity variable ($\beta = 1.39$, $\chi^2(1) = 5.10$, $p = .024$, $\text{Exp}(\beta) = .249$), negatively predicted by the social-pleasure identity variable ($\beta = -.45$, $\chi^2(1) = 4.13$, $p = .042$, $\text{Exp}(\beta) = .638$), and positively

influenced by the control variable of liking the restaurant ($p < .001$). None of the other variables significantly predicted choice of this restaurant gift-card (all $p > .10$).

2.6.2.2 Private-Pleasure

Choice of the private-pleasure restaurant gift-card was significantly predicted by the private-pleasure identity variable ($\beta = 1.21$, $\chi^2(1) = 4.29$, $p = .038$, $\text{Exp}(\beta) = .278$), and positively influenced by the control variables of liking ($p < .001$) and being physically close to one of the restaurant locations ($p = .025$). None of the other variables significantly predicted choice of this restaurant gift-card (all $p > .10$).

2.6.2.3 Social-Fuel

Choice of the social-fuel restaurant gift-card was significantly predicted by the social-fuel identity variable ($\beta = 1.39$, $\chi^2(1) = 5.10$, $p = .024$, $\text{Exp}(\beta) = 3.36$), and negatively influenced by the control variables of liking the restaurant ($p < .001$) and age ($p = .05$). None of the other variables significantly predicted choice of this restaurant gift-card (all $p > .10$).

2.6.2.4 Social-Pleasure

Choice of the social-pleasure restaurant gift-card was significantly predicted by the social-pleasure identity variable ($\beta = .750$, $\chi^2(1) = 5.49$, $p = .019$, $\text{Exp}(\beta) = 2.12$), and negatively predicted by the private-fuel identity variable ($\beta = -.775$, $\chi^2(1) = 5.04$, $p = .025$, $\text{Exp}(\beta) = .461$).

None of the other variables significantly predicted choice of this restaurant gift-card (all $p > .10$).⁹

Table 6: Regression Results

	Choice PF Restaurant	Choice PP Restaurant	Choice SF Restaurant	Choice SP Restaurant
PF Identity Match Variable	1.39*	-1.25	1.278	-.775*
PP Identity Match Variable	.877	1.279*	-.576	-.625
SF Identity Match Variable	-.56	-.392	1.21*	.180
SP Identity Match Variable	-.449*	1.37	-.848	.750*
Restaurant Near	-.075	.236*	-.029	-.028
Health of Restaurant	.094	.135	-.036	.046
Familiarity of Restaurant	-.343	-.163	-.060	.029
Liking of Restaurant	.691***	.791***	-.333***	-.151
Health Consciousness: Behavior	.019	-.169	.468	-.003
Health Consciousness: Information Seeking	.009	-.014	-.301	.150
Restrained Eating (DEBQ)	.017	-.156	-.115	.029
Dieting Self-control	.102	-.291	-.119	.015
Gender	-.107	-.379	.166	.199
Age	.002	-.011	-.031*	.009
BMI	.032	-.046	-.029	.014

* $p < .05$. ** $p < .01$. *** $p < .001$.

2.6.3 Discussion

I found that the consumption priority scores that underlie food identities predicted the choice of the most identity-congruent restaurant. Specifically, this study highlights that identities, when relevant to the domain being considered (in this case food), influence evaluations and behavior. This study demonstrates how real restaurants or business models within the domain of food could position themselves to reach out to consumers with differing food identities. Importantly, I found that while congruence between food identities and restaurants positively predicted choice, other food-related factors often studied (e.g., restrained eating) did not influence choice.

⁹ Across these analyses, patterns remain statistically similar if the non-significant variables are removed from the regression model such that choice of restaurant is always significantly and positively predicted by the congruent food identity variable (all $p < .05$).

Considering that identities are shown to impact attitudes and decision-making for salient and relevant decisions (Reed 2004), in my next study, I examine a potential moderator to my effect—the salience of identity. While food identities should be activated and relevant in food-oriented domains, I show that like identities (and unlike goals), activating another identity (i.e., moral identity) lowers the influence of food identities even in a food specific domain.

2.7 STUDY 3: FOOD IDENTITIES AND IDENTITY SALIENCE ON PURCHASE INTENTIONS AND ATTITUDES

In Study 3, I examine the influence food identities in another domain and on different managerially-relevant variables: brand attitudes and purchase intentions. Building from prior research on identity (e.g., Forehand, Deshpandé, and Reed 2002) and the identity principle theory from Reed et al. (2012), in this study, I consider the impact of identity salience. Identities are considered salient when they are mentally accessible and while it is not always a necessity to observing identity-relevant behavior, higher salience is linked to stronger identity influence (Laverie, et al. 2002; Puntoni, Sweldens, and Tavassoli 2011; Reed 2004). I predict, in line with this reasoning, that when made salient, food identities should be a strong predictor of food-based attitudes and behaviors as consumers will process information and behave in an identity-consistent manner (Forehand and Deshpandé 2001; Forehand, Deshpandé, and Reed 2002).

In line with this reasoning, I predict that if a different facet of identity is accessible and salient (e.g., moral identity) in a food-related context, that people should be motivated to behave consistently with the values and goals associated with that salient identity, lowering the influence

and strength of their food identity. To test this, I activated individuals' moral identity or food identity, and showed them advertisements that emphasize different food identities. One week later, participants answered the food identity measure which was retroactively used to determine whether they previously viewed and evaluated an identity-congruent or incongruent ad.

2.7.1 Method

Eight hundred Amazon MTurk users initially participated for a nominal payment. In this study, I only include participants who responded and completed the surveys across two points of contact one week apart, resulting in a sample size of 688 people ($M_{\text{age}} = 38$ years, $M_{\text{BMI}} = 26.36$, 50% women).¹⁰ Participants were randomly assigned to a moral identity or food identity prime, and then were randomly assigned to view one of four identity-congruent advertisements (i.e., private-fuel, private-pleasure, social-fuel, or social-pleasure). As I categorized whether people saw an identity-congruent or identity-incongruent ad after data collection, I ended up with a 2 (identity prime: moral, food) x 2 (identity advertisement: congruent, incongruent) between-subjects design.

The study at Time 1 contained two ostensibly unrelated parts. First, participants engaged in my priming task. The moral identity prime was taken from prior research (Aquino and Reed 2002), wherein, people write about their image of a moral person based on a list of characteristics that have been shown to activate moral identity. In the food identity prime condition, participants engaged in an identical task, however, they were given priorities of food identities that are relevant to my measure of food identity (i.e., highlighting the different

¹⁰ From the initial 800 participants, 346 were retained from the moral prime condition and 342 from the food identity prime condition. There were no meaningful demographic differences between those included or excluded from the final analysis.

priorities that underlie food identities) and were told to write about their image of people based on the priorities listed (food identity prime included in Appendix I).

Afterwards, participants were randomly shown one of the four identity-congruent ads. Participants were told that Target wants to encourage more grocery business, and thus were trying some new advertisements to attract new customers. Participants were told to then view and evaluate one of the new possible advertisements (advertisements included in Appendix J). After viewing one of the advertisements, participants were asked what their likelihood would be to shop at a Target for groceries if there was one equally close to them as another grocery store (1 = “very unlikely” to 7 = “very likely”). As well, people rated the advertisement they viewed using the Williams and Drolet (2005) ad evaluation scale (this has 11 dimensions that people rate ads on like “bad-good,” “unbelievable-believable,” and “ineffective-effective”). Next, participants answered standard demographic questions. At the end, everyone was informed that a follow-up survey would be available in a week’s time.

2.7.1.1 Identity-Congruency

One week later, I re-contacted participants to do my Time 2 survey. Everyone who was contacted had completed the Time 1 survey. Once participants agreed to do the Time 2 survey, they were given the food identity measure and thanked for their time. For the sake of analysis, to determine whether people had viewed identity-congruent messaging, using the food identity scores in Time 2, I created an identity-congruency variable. Using the scores people gave on each chronic consumption priority, people were categorized as existing within one of the four possible combinations of food identities or were found to have no identity match. Then, I created a variable that represented whether participants were shown an identity-congruent message

(coded as 1) or if they were shown an identity-incongruent message (coded as -1; further details of this variable are provided in Appendix E).¹¹

2.7.2 Results

2.7.2.1 Purchase Intentions

My theory predicted that participants would have higher purchase intentions for Target groceries when its advertisement used identity-congruent language (vs. identity-incongruent) language. I additionally predicted that this behavior would occur when food identities were made salient, and this effect would be dampened when moral identity was salient (as peoples' food identities would not be as readily accessible with another activated identity being made salient). To test my prediction, I regressed purchase intentions on identity-congruency (identity-incongruent = -1, identity-congruent= 1), identity prime (moral identity= -1, food identity = 1), and their interaction.¹²

The overall model was significant ($F(3,685) = 19.09, p < .001$), and the main effect of identity-congruency was significant while the main effect of prime was marginally significant (identity-congruency: $\beta = .32, t = 5.57, p < .001$); prime: $\beta = .11, t = 1.91, p < .001$). Importantly, the interaction was significant and consistent with my prediction ($\beta = .29, t = 4.94, p < .001$). The simple effect of identity-congruency on purchase intentions was positive when participants' food identity was made salient ($\beta = .61, t = 7.68, p < .001$). When people viewed identity-

¹¹ For those that completed the food identity measure, 57% viewed an identity-incongruent ad ($n = 392$) and 43% viewed an identity-congruent ad ($n = 296$). These percentages are like the split across the moral and food identity prime conditions.

¹² When I included demographic variables in the regression such as gender, BMI, and age, they had no effect (all $p > .10$) and so they were not included in the reported analyses.

congruent ads, they were significantly more likely to want to purchase from Target ($M_{\text{congruent}} = 5.05$, $SD_{\text{congruent}} = 1.44$) than those who saw an identity-incongruent ad ($M_{\text{incongruent}} = 3.82$, $SD_{\text{incongruent}} = 1.46$). The simple effect of identity-congruency was no longer significant when moral identities were made salient ($\beta = .036$, $t = .426$, $p = .67$; $M_{\text{congruent}} = 4.25$, $SD_{\text{congruent}} = 1.61$, $M_{\text{incongruent}} = 4.18$, $SD_{\text{incongruent}} = 1.49$; see figure 3).

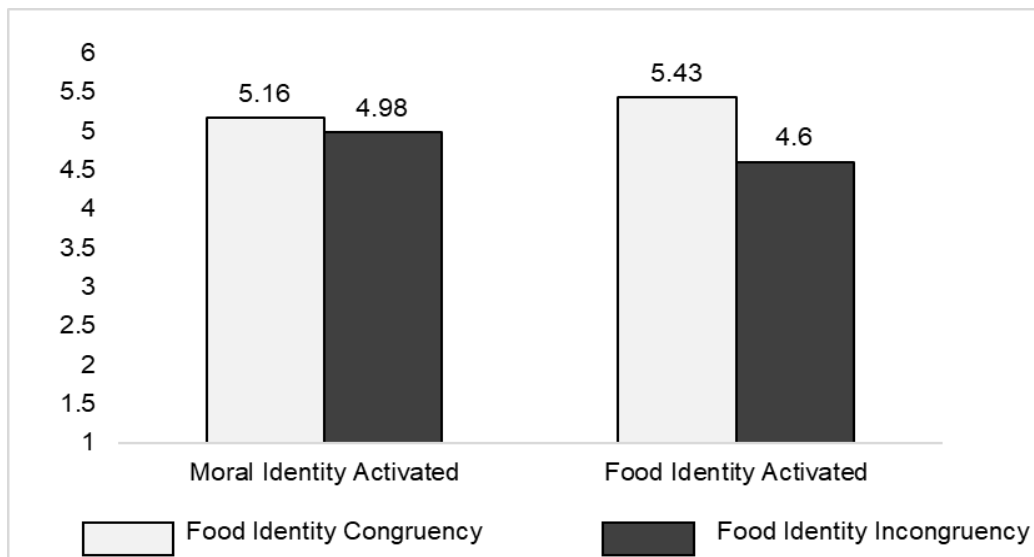


Figure 3: Purchase Intentions by Identity Prime and Identity-Congruency

2.7.2.2 Advertisement Evaluations

My theory predicted that participants would have a higher evaluation of an advertisement for Target groceries when the ad used identity-congruent language (vs. identity-incongruent) language. I additionally predicted that these evaluations would occur when food identities were made salient, and this effect would be dampened when moral identity was salient (as peoples' food identities would not be as readily accessible with another activated identity being made salient). To test my prediction, I regressed ad evaluations on identity-congruency (identity-

incongruent = -1, identity-congruent= 1), identity prime (moral identity= -1, food identity = 1), and their interaction.¹³

The overall model was significant ($F(3,685) = 10.73, p < .001$), where the main effect of identity-congruency was significant while the main effect of priming was not significant (identity-congruency: $\beta = .25, t = 4.64, p < .001$); priming: $\beta = -.03, t = -.50, p = .62$). Importantly, the interaction was significant and consistent with my prediction ($\beta = .17, t = 3.07, p = .002$). The simple effect of identity-congruency on ad evaluations was positive when participants' food identity was made salient ($\beta = .42, t = 5.56, p < .001$). When people viewed identity-congruent ads, they were significantly more likely to view the ad positively ($M_{\text{congruent}} = 5.43, SD_{\text{congruent}} = 1.25$) than those who saw an identity-incongruent ad ($M_{\text{incongruent}} = 4.60, SD_{\text{incongruent}} = 1.45$). The simple effect of identity-congruency was no longer significant when moral identities were made salient ($\beta = .086, t = 1.10, p = .27; M_{\text{congruent}} = 5.16, SD_{\text{congruent}} = 1.32, M_{\text{incongruent}} = 4.98, SD_{\text{incongruent}} = 1.47$; see figure 4).

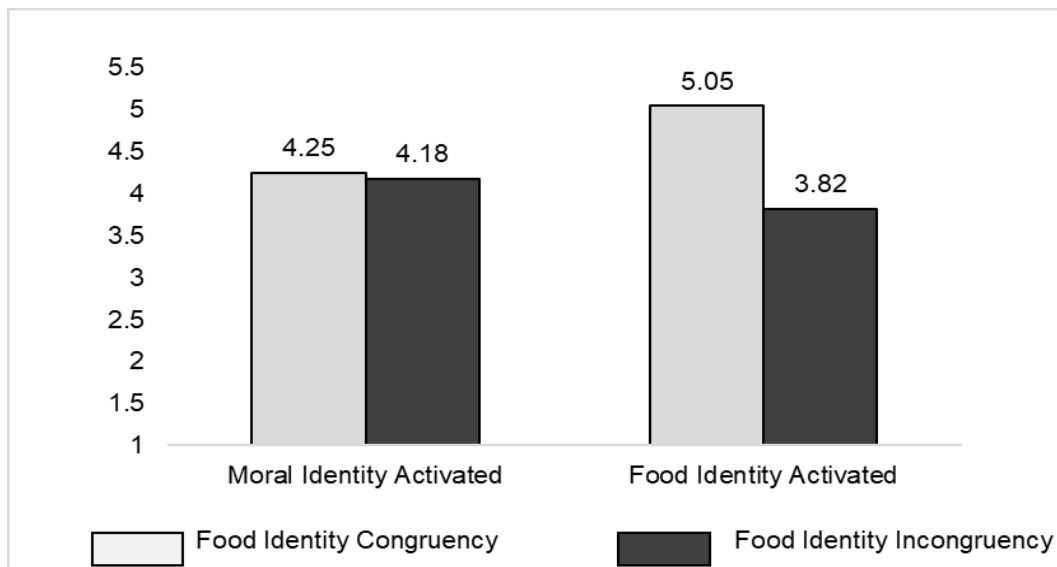


Figure 4: Advertisement Evaluations by Identity Prime and Identity-Congruency

¹³ When I included demographic variables in the regression such as gender, BMI, and age, they had no effect (all $p > .10$) and so they were not included in the reported analyses.

2.7.3 Discussion

In Study 3, I found that when food identities are salient, they influence food-based attitudes and behaviors. That is, when food identities were activated and salient, attitudes and purchase intentions were more strongly influenced by this identity, such that participants who viewed an identity-congruent (vs. identity-incongruent) ad had higher purchase intentions and more positive evaluations. However, I found that when moral identity was activated and salient, participants were less motivated to behave consistently with their food identities, and thus this identity was no longer as influential.

In my next study, I consider another possible moderator of the effect of food identities on behavior, the chronic association between the self and the identity domain, often referred to as the “strength of identification” (Stayman and Deshpandé 1989). This kind of association produces a stable and enduring sensitivity to identity-related information (Reed 2004). Thus, I predict that consumers who have more strongly held food identities will be more positively influenced towards identity-congruent stimuli than those with lower associations and lower strength food identities. I empirically measure and test for this in Study 4.

2.8 STUDY 4: FOOD IDENTITY-STRENGTH PREDICTS CONSUMPTION

In this study, I explore how positioning food in terms of peoples’ different food identities impacts consumption. In addition to research finding that salient identities are more impactful, the strength of identification and relevance of an identity have been shown to influence consumers’ identity-consistency (Reed 2004, Reed et al. 2012). Building from this research, I

examine how the strength of peoples' food-identity influences the consumption of popcorn. I predict that people will consume more when the popcorn is framed as being identity-congruent (vs. incongruent), and that this pattern will be stronger for those with more strongly-held food identities. This prediction is consistent with work showing that individuals consume more of products that are identity-consistent (Coleman and Williams 2013).

I measure the degree of food identity-strength using the Euclidean distance measure between food identity-congruent stimuli and participants' self-importance scores on the consumption priorities that underlie the food identity measure. I also measure other possible predictors of consumption amount (i.e., restrained eating and modified dieting self-control), and find that food identities are a stronger predictor of consumption than are these other constructs, especially for strongly held identities.

2.8.1 Method

One hundred and seventy-two undergraduates participated in exchange for class credit in the behavioral lab ($M_{\text{age}} = 20$ years, 50% women). Participants were randomly assigned to view one of four different food identity messages (identity-message: private-fuel, private-pleasure, social-fuel, social-pleasure) in a between-subjects design.

This study was conducted in two ostensibly unrelated parts. At the beginning of the hour-long lab session, participants were given, in randomized order, the food identity measure, the modified self-control scale, and the restrained eating subscale from the DEBQ. Participants also indicated their level of hunger and mood along with demographics to signal the end of the survey. Participants were thanked for completing the task and went on to the next survey.

Approximately thirty minutes later, participants, in an ostensibly separate study, were told they were taking a survey that was designed to examine different aspects of peoples' experiences viewing shows and movies (design and language adapted from McFerran et al. (2009), Study 1). Participants were instructed that they would watch a short 5-minute video. The video was a segment on animal learning from the BBC that was emotionally neutral. Then participants were told that they would be provided with a typical movie-going snack, popcorn, to enjoy while watching the video. Participants were instructed to raise their hands to collect a bag of popcorn before proceeding to the next page of the survey which contained some information about their snack.

Participants read about the popcorn they were about to eat during the video. Participants saw one of four messages that were each pre-tested to be strongly representative of the different possible food identity combinations (e.g., a high score on both social and pleasure consumption priorities would be considered identity-congruent with food identities comprised of the same priorities; popcorn descriptions in Appendix K, instructions in Appendix L). Other than possible allergens, no nutritional information was provided. Every participant received a bag with 1.1 ounces of popcorn (i.e., a little under two full servings of this popcorn), numerically labeled to match consumption to their online survey responses.

Afterwards, participants watched the documentary clip and returned their labeled popcorn bag to the researcher assistants. They then answered some questions about the movie-going experience (e.g., about the lighting, chair comfort, visual and audio quality), and about the popcorn snack (e.g., taste, satisfaction, health, would eat again) to further support the cover story before completing the survey.

2.8.1.1 Identity-Congruency

In this study, participants answered the four-item food identity measure prior to being randomly assigned to see one of four identity-targeted popcorn messages in a separate survey. To determine whether people were viewing identity-congruent messaging, and to determine the strength of these identities, I created two measures. As in Study 3, the first measure I created was an identity-congruency variable wherein, using the different scores people gave on each chronic consumption priority, people were categorized as existing within one of the four possible combinations of food identities or were found to have no food identity match. Then, I created a variable that represented whether participants were shown an identity-congruent message (coded as 1) or an identity-incongruent message (coded as 0; see Appendix E for further details on this variable).

2.8.1.2 Identity-Strength

The delineation of seeing identity-congruent or incongruent messages did not consider the strength of participants' food identity. As identity-strength has been shown to be extremely influential on consumers' attitudes and behavior where stronger identities exert greater influence, I computed Euclidean distance scores between peoples' food identity scores and the pre-tested score of the popcorn message they saw (pre-tested scores used in Euclidean distance equations and more information on this variable are in Appendix M). This allowed me to create a distance measure where a higher score meant that there was greater distance between a person's food identity and the popcorn message they saw (i.e., lower strength), while a lower score meant that there was less distance between a person's food identity and the popcorn message they saw (i.e.,

higher identity-strength). I use this identity-strength variable, the identity-congruency variable, and the interaction of the two variables in the following analyses.

2.8.2 Results

2.8.2.1 Choice to Consume Popcorn

I believed that the choice to consume popcorn might be larger for those whom the popcorn was identity-congruent (vs. incongruent). To test this, I ran a binary logistic regression on the choice to eat popcorn (did not eat = 0, chose to eat = 1) by the identity-congruence condition (incongruent = 0, congruent = 1), mean-centered modified dieting self-control, participants' level of hunger, participants' mood, restricted eating, age, and gender.

The only thing that had any impact on the choice to eat (or not eat popcorn) was the participant's level of modified dieting self-control, such that those with higher dieting self-control ate less ($\beta = -.50$, $\chi^2(1) = 4.45$, $p = .035$, $\text{Exp}(B) = .60$). Nothing else significantly predicted the choice to consume popcorn (all $p > .24$).

2.8.2.2 Role of Identity-Congruency on Popcorn Consumed

Among participants who chose to eat popcorn ($n = 159$), I predicted that the amount of popcorn eaten would be larger for participants who ate popcorn that had a message that was congruent with their food identity compared to those who ate incongruently-described popcorn. To test this, I regressed the amount of popcorn consumed by the identity-congruence of the popcorn

messages (incongruent = 0, congruent = 1)¹⁴, mean-centered modified dieting self-control, participants' level of hunger, participants' mood, restricted eating, age, and gender.

The results were consistent with my prediction. The overall model was significant ($F(7, 152) = 2.28, p = .031$). I found a significant effect of identity-congruence on the amount of popcorn consumed such that participants who had seen popcorn with an identity-congruent message ate significantly more ($M_{\text{congruent}} = .56 \text{ oz}, SD_{\text{congruent}} = .39 \text{ oz}$) than those who had seen an identity-incongruent message ($M_{\text{incongruent}} = .43 \text{ oz}, SD_{\text{incongruent}} = .37 \text{ oz}; \beta = .14, t = 2.37, p = .019$). In addition to identity-congruence, gender also had a significant impact on the amount consumed such that women ate less than men ($\beta = -.17, t = -2.54, p = .012$). Nothing else in the model significantly impacted the amount of popcorn consumed (all $p > .10$).¹⁵

2.8.2.3 Role of Identity-Strength on Popcorn Consumed

Among participants who chose to eat popcorn, I predicted that the amount of popcorn eaten would be larger for participants who not only ate popcorn that had a message which matched their chosen food identity, but who also had stronger food identities. To test this, I regressed the amount of popcorn consumed by the identity-congruence of the popcorn messages (incongruent = 0, congruent = 1), the Euclidean distance score (a continuous measure), the interaction between identity-congruency and Euclidean distance, mean-centered modified dieting self-control, participants' level of hunger, participants' mood, restricted eating, age, and gender.

The results were consistent with my prediction. The overall model was significant ($F(9, 152) = 2.69, p = .006$). I found a significant interaction of identity-congruence and Euclidean

¹⁴ Of the sample that ate popcorn, 55% did not view an identity-congruent message ($n = 88$) and 45% of sample viewed an identity-congruent match ($n = 71$).

¹⁵ There was not a significant interaction of gender and identity-congruence on either the choice to eat ($p = .774$) or the amount consumed ($p = .601$).

distance on amount of popcorn consumed ($\beta = .079, t = 2.33, p = .021$)¹⁶. As nothing else in the model other than gender significantly predicted the amount of popcorn consumed (all $p > .10$), I ran a spotlight analysis with only gender as a covariate.¹⁷

I found that at high levels of Euclidean distance (i.e., low identity-strength), the amount of popcorn consumed was not dependent on whether participants saw an identity-congruent message or not ($M_{\text{congruent}} = .48 \text{ oz}, SD_{\text{congruent}} = .38 \text{ oz}, M_{\text{incongruent}} = .49 \text{ oz}, SD_{\text{incongruent}} = .36 \text{ oz}; \beta = -.005, t = -.115, p = .91$). However, when there was low Euclidean distance (i.e., high identity-strength), I found that those who ate popcorn that had an identity-congruent message ate significantly more ($M_{\text{congruent}} = .63 \text{ oz}, SD_{\text{congruent}} = .39 \text{ oz}$) than those who read an identity-incongruent message ($M_{\text{incongruent}} = .37 \text{ oz}, SD_{\text{incongruent}} = .32 \text{ oz}; \beta = .13, t = 3.09, p = .002$; see figure 5).

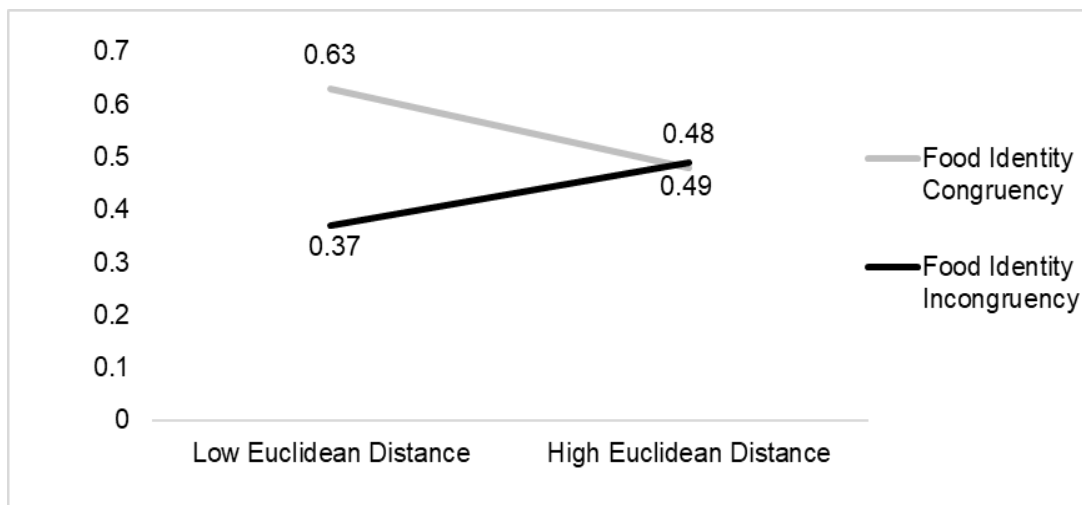


Figure 5: Amount Popcorn Consumed by Identity-Congruency and Identity-Strength

¹⁶ I again found that gender significantly impacted the amount of popcorn consumed, such that women ate less than men ($\beta = -.18, t = -2.66, p = .009$).

¹⁷ The pattern of significance holds whether or not there are covariates included in the model.

2.8.3 Discussion

The results of Study 4 suggest that food identities can impact the amount of food people consume. Participants who saw an identity-congruent message, regardless of specific food identity, ate more of the popcorn on average than participants who got a popcorn snack that had an identity-incongruent message. This effect held for individuals regardless of restrained and dieting specific measures. Importantly, I also found in this study that it wasn't solely the congruency of identity that influenced popcorn amount consumed. I found that consumers who had higher levels of identity-strength (measured as lower distances of Euclidean distance) were more strongly influenced by seeing identity-congruent messages than those for whom food identity-strength was lower.

In this study, I also considered a few alternative explanations. These included how much people enjoyed their popcorn, thought it was high quality, and if they thought it was tasty. Analyses and write-ups are included in depth in Appendix N. Overall, I found that these factors did not predict consumption, nor did these feelings significantly differ for people regardless of whether they consumed identity-congruent or identity-incongruent popcorn.

These results show that food identities can have real behavioral consequences. As food identities are likely to be activated multiple times during people's daily food decisions and identities are considered more impactful when they are salient and/or relatively more important (i.e., strongly held), understanding how people respond to food through the lens of their identity is important for understanding their chronic consumption behavior.

2.9 GENERAL DISCUSSION

In this research, I posit and demonstrate that some consumers have food identities—a self-conception organized around a set of consumption priorities. I define food identities based on the interrelated relationship of two dimensions: 1) the extent to which an individual uses food for their individual or communal priorities, and 2) the extent to which consumption situations are used to achieve their utilitarian or hedonic priorities). In this research, I focus not on the food people choose per se, but how people chronically approach food decisions and situations to organize their lives through an identity that is stable over time, separate from other food-specific contextual goals people may possess and other identities people may hold.

Across seven studies, I examine the existence and predictive power of food identities. I examined situations relevant to the identity principle framework (Reed et al. 2012) to identify theoretically-motivated moderators that influence the impact of food identities. Throughout studies, I considered four of the five components of this identity framework and incorporated scenarios, empirically measured, or manipulated these identity principles (i.e., identity relevance, identity salience, and identity association) to additionally showcase that food identities are indeed, a type of identity; rather than another type of goal or personality trait.

2.9.1 Theoretical Contributions

This research makes a number of contributions to the literatures on food decision-making and identity-based behavior. Critically, I connect priorities individuals have that are based in food with their self-conception, linking attitudes and behaviors surrounding food to identity. I do this

by measuring peoples' consumption priorities and show that these priorities are the basis of identities that impact consumption, attitudes, and behaviors. Given the pervasiveness of food decisions in everyday life, recognition of peoples' food identities, and the role of this identity on behavior offers the potential for future research in a wide range of consumer experiences.

In addition to approaching food through an identity-framework, I also approach how consumers make food decisions from the unique angle of focusing not on the food people choose to consume (e.g., chocolate cake vs. salad), but on how people chronically approach food decisions and situations to organize their lives. Considering food from this perspective is novel and opens several avenues for future research.

Third, the present paper is integrative, offering insights related to a diverse range of literatures. My investigation is rooted in classic work from consumer behavior, anthropology and sociology. Building from these literatures, I empirically investigate suppositions related to food and identity and consider how food identities differ from prior conceptualizations of existing food preferences, personalities, and behaviors. In doing so, I bridge paradigms in a way that extends prior findings across multiple literatures. I hope that this enriched perspective may yield future research that recognizes more multifaceted roles of food consumption in consumer experiences.

2.9.2 Practical Implications

In addition to aiding our theoretical understanding of food decision-making and identity-based behavior, my findings have practical implications for how food experiences, retailers, products, and brands can be presented to consumers. I found that identity-congruent food experiences and

products (i.e., restaurants, advertisements, and snacks) were a strong predictor of attitudes, behavior, and choice for those for whom their food identity was salient, active, and strong. While some businesses already attempt to encourage consumers to eat their products or go to their stores by creating a link between their brand and a given food identity, I think this practice, with the incorporation of the priorities of food identities, could be even greater. For example, Ritz crackers have used the message of “It’s not what’s on the table that matters, it’s who.” This type of message is one that I believe would really excel for social-fuel individuals as it highlights how Ritz is a brand that can be used for social facilitation and bonding; a top priority for individuals who hold this food identity. If more brands and restaurants knew their target audience through the four different food identities, it could increase consumer attitudes and behaviors such as brand liking, brand loyalty, and the purchase and consumption of the brand compared to competitors in the same market.

Given the continued rise of obesity, businesses and policy makers should be encouraging healthier consumption behaviors. To address this concern, one intervention that may be more beneficial to consumers is one that is not only focused on restriction; but a strategy that incorporates a food identity-congruent framework. For many of the participants in my studies, they were able to be classified into one of the food identities covered in this initial exploration. As I found for those individuals, stronger association between the self and the identity increased consumption, possibly re-framing weight-loss programs, or healthy food options for different identity-congruent consumption priorities (vs. a pure focus on restriction or health value), may positively influence healthy behavior. For example, teaching social-pleasure individuals about how to make healthier food experiences more social and more pleasurable (e.g., focus on the tastiness of the healthy options, discuss the ways to indulge in an experience without over

consuming, etc.) may be more important in aiding weight loss or healthier consumption than messages about calories and nutrition.

As well, in Study 1A, I discovered patterns of eating behaviors that were in-line with different consumption priorities. For example, while all pleasure-based identities exhibited strong tendencies towards Epicurean eating pleasure and eating disinhibition, it was only the private-pleasure identity that correlated with Epicurean eating for supersizing or eating for hunger. These behaviors have a “bingeing” aspect to them which is traditionally considered a private or hidden behavior. As bingeing is typically considered “unhealthy,” possible future research could examine how identity-inconsistent framing around bingeing (e.g., linking bingeing to an outgroup identity) could possibly minimize this unhealthy behavior.

2.9.3 Directions for Future Research

The present research is an initial theory test for food identities existence and influence on consumer behavior. Considering this, I have only scratched the surface of the possible types of food identities that could exist, and on the predictive power of food identities.

I believe that my research on food identities could be relevant to multiple streams of research. One area that would be interesting for future work would be examining the role of peoples’ food identities when considering the work on affective states and their influence on the choice and consumption of hedonic foods (e.g., Garg, Wansink, and Inman 2007). Food identities may predict different affect-based eating tendencies which has important implications for encouraging healthier consumption. For instance, perhaps people who hold a social-pleasure food identity are the most likely to eat unhealthy food; but only when they are upset as they have

been taught to use hedonic foods as a bonding mechanism to others in times of need (predicted due to the positive and significant correlation between this food identity and consumption for comfort). Future research could delve into how to make healthier foods appear better for bonding or group activities to encourage happier, healthier, and more social consumption decisions.

Additionally, future research could explore whether there is a relationship between food identities and how food information is processed. Research has shown that nutritional information is processed differently based on how it is presented (Nikolova and Inman 2015) or by specific individual level differences (e.g., functional food comprehension by health consciousness; Naylor et al. 2009). Future work could examine whether food, and specifically, health information, is processed differently if food identities are made salient at the point of purchase as the priorities consumers consider when thinking about their food identity may differ from their food goals, changing how the information is processed (e.g., research has shown that an active dieter identity changes how food is perceived, therefore, it stands to reason food identities would behave similarly; Irmak, Vallen, and Robinson 2011).

Future research could also delve more deeply into how food identities predict behavior, interpersonal communications, and compromise in peoples' lives more generally. As this paper was an initial exploration, I focused solely on showing the influence of food identities for individually made food-based decisions which is a highly relevant and salient domain to this identity. However, food identities may be relevant in other types of consumption scenarios—for individuals, dyads, and groups making decisions. One example of how peoples' food identities could influence behavior is the situation of a couple trying to determine locations to travel to or places to go eat as their complimentary or opposing food identities could influence the type of food experience they desire. For example, someone who is private-social may enjoy a dark

dining experience (i.e., eating in the dark at a restaurant), as the experience is meant to be completely about the self getting immersed in the food, while someone who is social-fuel would most likely actively dislike that type of experience and may want a restaurant that has shared tables to allow people to interact with everyone around them while dining. As there are numerous implications to how food identities would factor into joint decision-making scenarios, future research that examines how peoples' food identities influence their social lives, romantic relationships, and the activities they engage in alone or with others is important.

Considering when food identities behave as actual identities or as ideal-selves is an important avenue for future research. Prior research on food identities found that despite some individuals having food identities that they could be consistent in enacting, others were willing to, or felt they had to, compromise their identities in situations that necessitated it, and everyone interviewed had different strategies for coping when they had to engage in identity conflicting behavior (Bisogni et al. 2002). Building from this finding, an interesting direction for future research would be to examine how identity-threat or conflicting scenarios to peoples' food identities influence behavior. For example, if someone who is typically a social-pleasure eater is in a situation where their food experience is independent of others, will they compensate through over-eating or over-indulging in food?

Another avenue of future research would be to examine how a consumers' food identity influences his or her food planning behaviors, shopping habits, and dining in general. For example, how do food identities impact everyday aspects regarding food (i.e., such as planning meals for the week)? Does having a more socially (vs. privately) oriented food identity predict a lower likelihood of shopping, planning, and home-cooking while simultaneously predicting more meals with other people? Does a more fuel (vs. pleasure) oriented food identity predict shorter

shopping trips or deliberation times when considering meals as deliberation is seen as a waste of time? If the food identity is an ideal self that is not always accessible (e.g., due to financial or time restraints), does this then influence the types of events people plan for larger get-togethers or celebrations? All of these are possible avenues for future research, along with an exploration on other possible food identities that may exist.

**3.0 ESSAY 2: WHEN POSTING ABOUT PRODUCTS IN SOCIAL MEDIA
BACKFIRES: THE NEGATIVE EFFECTS OF CONSUMER IDENTITY-SIGNALING
ON DESIRE TO PURCHASE**

Nearly 80% of marketers believe that consumer engagement with their products on social media will increase revenue and customer retention (HubSpot 2017; Marketo 2015), and 90% of US mid-to-large-sized companies are now using social media for marketing purposes (eMarketer 2017). There are many ways for consumers to engage with products on social media platforms such as Facebook, Instagram, and Pinterest, and consumers frequently post about or share products. Thus, conventional wisdom is that marketers will enjoy performance-related benefits from getting their customers to post products. Although plausible, is this really the case? Do firms' attempts to get consumers to generate word of mouth (WOM) or so-called "earned media" increase consumers' desire for those products? Could marketing efforts that encourage consumers to post a firm's products in social media potentially backfire?

As with actual, real-world product purchase and consumption, consumers can use social media product interactions to express their identities to themselves and to others. This research seeks to understand this relatively new form of identity expression with respect to how and why it affects a consumer's desire to purchase these posted products. Despite the ubiquity of product posts in social media, we do not yet have a good understanding of how this affects the consumers who do the posting. Instead, extant research focuses on product-related social media posting as a

form of WOM and predominantly considers how such actions impact those who see the posts (i.e., receivers) instead of the transmitters themselves (Lamberton and Stephen 2016; Stephen 2016). Thus, while research has established how posting about products in social media affects *other* consumers' interest in those products and their purchasing actions, we know little about how this affects the consumer who originates the post.

The current research addresses this gap by considering two research questions: (i) How does posting products on social media affect consumers' actual purchase intentions? (ii) What is the psychological mechanism through which product posting impacts purchase intentions? Conceptually, I examine consumers' product posting on social media through the lens of identity-signaling. It is well-established that consumers purchase products not only for their functional benefits but also to appropriate the symbolic value ascribed to these products (Belk, Bahn, and Mayer 1982; Levy 1995). Put simply, people sometimes buy and consume products because they can signal something about the self to themselves, to others, or both. With this theoretical lens in mind, it is plausible that posting identity-relevant products in social media is another way for people to signal their identities, albeit virtually. Of interest in the current research is the extent to which this relatively new form of self-expression in social media acts as either a complement or substitute for actual purchase.

When consumers post products in social media, they may be doing it to signal their identity or, broadly speaking, may be motivated by image-related reasons (Back et al. 2010; Reed et al. 2012; Toubia and Stephen 2013). A positive effect of posting on purchase intentions would occur if posting increases identity-consistency motives, as suggested in the identity-based motivation literature (Oyserman 2009). In other words, posting about products in social media could complement actual purchase by creating a stronger purchase desire so that one's physical

life is consistent with their virtual life. Although conceivable, I argue that the opposite effect is more likely to occur. I propose that posting products in social media will have a negative effect on the desire to purchase, acting as a substitute for actual purchase. This occurs because, under certain conditions, the act of posting allows consumers to fulfill their identity-signaling needs, obviating the subsequent need for actual purchase.

I examine this phenomenon and test this central hypothesis with six experiments. To preview my results, I find that when consumers post identity-relevant products on social media, this leads to a decreased interest in purchasing those and similar products. This occurs as consumers' identity-signaling needs are fulfilled by posting about identity-relevant products. Additionally, I show that this only occurs when two concurrent types of identity-signaling needs are satisfied through product posting: (i) A consumer feels that her product posting allows her to accurately construct and clarify her self-identity, and (ii) she feels that her product posting signals her identity to others. Importantly, I show that consumers need to both feel as though their posts accurately represent their self-identity (i.e., self-verify) and they must signal this identity to other people for consumers to fulfill their identity-signaling needs, and subsequently, have decreased purchase intentions for identity-relevant products.

This research makes a number of theoretical and practical contributions. First, I add to the small but growing literature on individual-level consequences of social media use. Prior work has mostly addressed firm-level aspects, such as how social media influences aggregate sales and customer acquisition (Stephen and Galak 2012; Trusov, Bucklin, and Pauwels 2009). My research complements the nascent body of research that instead focuses on individual-level and real-world consequences of social media use such as brand favorability and purchase (John,

Emrich, Gupta, and Norton 2017), self-esteem and self-control (Wilcox and Stephen 2013), and shopping (Zhang, Trusov, Stephen, and Jamal 2017).

Second, I expand the types of consumer behaviors in social media considered in the literature by shedding light on how posting about products affects the consumer who does the posting (i.e., transmitter) instead of others (i.e., receivers), which has been the dominant focus in the online WOM literature. This is in line with recent calls for social media marketing research to be broader than just WOM (Lamberton and Stephen 2016) and to consider social media use from a more psychological perspective (Stephen 2016).

Third, I add to the literature on identity-based consumption and identity-signaling. Prior literature has emphasized situations where people consume in identity-consistent ways and respond favorably to identity-congruent products and messages (Belk 1988; Reed et al. 2012). In contrast, I explore a situation in which connections between the self and products have negative consequences for purchase. This research thus adds to research showing identity-consistency can have costs (Bhattacharjee, Berger, and Menon 2014).

Finally, my findings have important implications for the practice of social media marketing. If consumer engagement with products in social media can undermine the desire to purchase those and similar products, marketers may want to consider other social media strategies or revise expectations for what these programs are likely to achieve. Getting consumers to post products may still achieve receiver-side WOM-related benefits associated with social influence and information diffusion. However, when marketers encourage this, my findings suggest that they could do so at the cost of sales from the consumers on the transmitter side, i.e., the consumers making the posts.

3.1 THEORETICAL BACKGROUND

3.1.1 Identity-Relevant Consumption

Identities form a basis for social classification and help to create and maintain the self-concept (Aquino and Reed 2002). Consumers have different identities that organize and guide their attitudes, judgments, behaviors, and choices. Importantly, prior research has shown that consumers tend to engage in identity-consistent behavior and expression (Oyserman 2009). One way that consumers express, maintain, and reinforce their identities is through the products they purchase and consume (Belk 1988; Berger and Ward 2010; Escalas and Bettman 2005; Forehand, Deshpande, and Reed 2002; Reed 2004; Ward and Broniarczyk 2011). Consumers generally choose and purchase products that express an identity that they possess, such as an environmentalist driving an eco-friendly Toyota Prius (Ward and Dahl 2014).

Identity-relevant products serve as identity signals; they communicate something about the consumer's identity to a broader audience, as well as to the consumer herself (Berger and Heath 2007; Dhar and Wertenbroch 2012). When others view the individual publicly using a product, inferences are made about who that person is; e.g., inferring that someone who owns a Prius cares about the environment (Berger and Heath 2007, 2008). Further, the consumer herself makes self-inferences based on product ownership; e.g., I own a Prius, so I care about being environmentally-friendly (Bem 1972; Bodner and Prelec 2003; Malär et al. 2011; Swann 1983). Thus, extant literature on identity-signaling, self-perception theory, and self-signaling theory suggests that owning and consuming identity-relevant products allows a consumer to

communicate something about herself to others, as well as to contribute to her own self-perception.

Previously, the identity-signaling literature had assumed that identity signals could only be communicated through ownership or conspicuous consumption (Berger and Heath 2007, 2008). In the age of social media and the connected consumer (Deighton, Goldenberg, and Stephen 2017), however, it is probable that virtual associations with products can serve identity-signaling functions akin to actual ownership or consumption. If so, virtually associating with products through social media may fulfill identity-signaling needs, ultimately acting as a substitute for actual purchase.

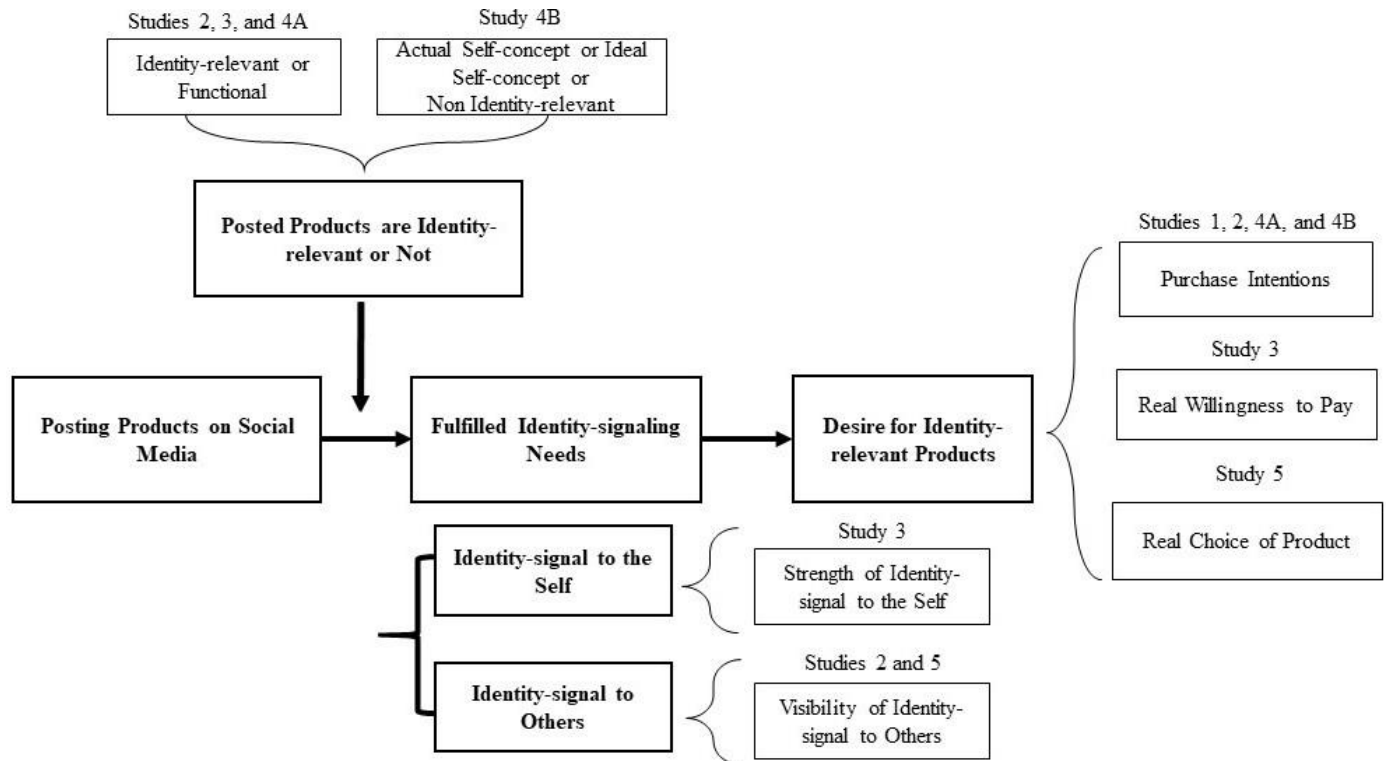
How is this possible? Social media can be used for self-presentation, affiliation, and expression (Back et al. 2010; Gosling, Gaddis, and Vazire 2007; Toubia and Stephen 2013; Wilcox and Stephen 2013). Social media provides a platform where individuals can have a broad audience to whom they can demonstrate identity-relevant choices. For example, a consumer can “follow” Patagonia on any social media platform, and this link between the consumer and their products is visible to a broader audience. Therefore, social media enables consumers to send virtual identity-signals to others. Further, as the consumer chooses and views her own social product posts, these can serve as self-signals, verifying identity possession, reinforcing connections between consumers and their products, and serving to maintain identity-consistent self-perception (e.g., “I posted about Patagonia, so being environmentally-friendly is something important to me;” Escalas and Bettman 2003; Forehand, Deshpande, and Reed 2002; Reed 2004; Ward and Broniarczyk 2011). Therefore, I suggest that if posting products on social media allows the consumer to both sufficiently (i) signal an identity to others, and (ii) self-verify the

identity, then these product posts can fulfill the consumers' identity-signaling needs, lowering the interest in purchasing actual identity-relevant products.

My theory predicts a counterintuitive effect, such that there are situations where consumers' posting products on social media make them less likely to want to purchase. Critically, I only predict this to extend to products within the same identity-domain as the signaled identity. I expect virtual identity-signaling to impact purchase at the category level (i.e., any product that communicates the same identity) rather than just at the product level (i.e., only the product that is posted). I predict that this will occur as prior research has shown that consumers are attracted to a wide array of brands and products that are consistent within a particular identity (Malhotra 1988; Sirgy, Grewal, and Mangleburg 2000), as they all are contained within the "symbolic constellation of products that define an identity" (Reed et al. 2012, p. 316). Thus, any product that signals the same identity of the posted products, should be desired less, as posting fulfills the identity-signaling needs that a consumer will typically derive from purchase, consumption, and ownership at the identity, rather than product, level.

3.1.2 Why and When Posting in Social Media Can Fulfill Identity-Signaling Needs

In a broad sense, my hypothesized effect should only occur in situations where a consumer's posting actions are identity-related and, specifically, fulfill her identity-signaling needs (which can only occur when a consumer has sufficiently signaled her identity both to the self and to other people). This process has multiple components, which suggest theoretically relevant moderators (see Figure 6 for my hypothesized framework and an overview of studies).



Notes: Boxes in bold represent the hypothesized process. The nonbold boxes represent the empirical operationalizations of the independent and dependent variables across studies. Posting identity-relevant products on social media fulfills a consumers' identity-signaling needs (which is only accomplished if a consumer feels as though she has sufficiently identity-signaled both to the self and to other people), resulting in a lower subsequent desire for identity-relevant products.

Figure 6: Overview of Studies

First, I propose that my effect depends on product posts being seen as identity-relevant to the person posting as the first target of posting is the self. As individuals might post products for other reasons (e.g., entering a contest or creating a “list” for gifts), a posted product needs to be seen as an identity-signal not just to an audience but to the person posting the product. In the case of non-identity-relevant product posts, there is less self-symbolic value that consumers can acquire through the product posting, thus, the product posted is not meaningful for constructing one’s identity (Berger and Heath 2007). This subsequently means that posting does not fulfill identity-signaling needs. However, for identity-relevant product posts, as research on self-perception theory (Bem 1972) and self-signaling theory (Bodner and Prelec 2003) suggest that people make inferences about themselves based on their behavior and choices, I believe that

posting identity-relevant products provides the consumer with evidence about the type of person they are, and this self-diagnostic signal then influences how much they have accomplished their self-related identity-signaling needs.

While generally, posting identity-relevant products may be enough of a self-signal, when posted products do not feel like a strong identity signal to the self, I expect that consumers will still want identity-relevant products as they have not fulfilled their identity-signaling needs. This weak signal to the self could occur for two reasons: the product does not signal the identity (i.e., is not identity-relevant, as described above) or because identity verification needs are heightened. Identity verification is particularly important for strong and central identities (Reed et al. 2012), as it is more important to maintain identity-consistency for these strong and central identities (Bolton and Reed 2004). Thus, I predict that if a consumer has a particularly strong identity, she may not feel as though she has adequately self-verified with “merely” a virtual product association via posting on social media, and, consequently, would not show a decreased interest in purchasing identity-relevant products as there is still value for self-verification via purchasing.

The other target of identity-signaling, after the self, is other people. Research has shown that an essential component of identity-signaling is that the signal is seen by others. The private consumption of identity-relevant products alone does not communicate identity to others (Berger and Heath 2007; Reed et al. 2012; Shavitt and Nelson 1999). Therefore, the public visibility of these identity-signals matter. Consequently, I predict that if consumers are fulfilling self-identity-signaling through identity-relevant product posts, yet others are unable to see the posts, a consumers’ overall identity-signaling needs will be left unfulfilled. Thus, I do not predict a negative effect on purchase intentions to occur for posts that are private (i.e., not public) as there is still value for signaling identity to others via purchased products.

Lastly, assuming that consumers' identity-relevant product posts have allowed them to signal both to the self and to others at the time of posting, I predict the salience of the post during the time of the purchase decision will matter. Research has shown that the salience of an identity can influence the strength and the probability of the identity influencing subsequent behavior (Laverie et al. 2002; Reed et al. 2012). While consumers always have access to their physical products, virtual identity-relevant product posts are not necessarily always accessible or top of mind, and thus may not be strong identity signals. I predict that when the salience of identity-relevant product posting is weak during the point of purchase, consumers will not feel as though they have fulfilled their signaling needs, and there will be no negative effect on purchase intentions.

3.1.3 Overview of Studies

My framework predicts a counterintuitive effect, such that there are situations where consumers' posting about products on social media make them less likely to purchase. This occurs when consumers post identity-relevant products that allow them to fulfill their identity signaling needs.

I test my theory with six experiments. Study 1 establishes the basic effect that posting identity-relevant products in social media can decrease purchase intentions. Study 2 examines how product posts need to be both identity-relevant and public to reduce purchase intentions. Study 3 tests the moderating effect of identity strength where, for posts that signal identity to others, when identities are particularly strong, product posting does not provide a sufficient self-signal, and thus the negative effect of posting is attenuated as the self-component of identity-signaling needs are not fulfilled. Studies 4A and 4B establish that the effect of product posting is

not a general decline in product interest, but rather is specific to products that signal the same identity as those posted virtually. Finally, Study 5 highlights the importance of the salience of product posts, revealing that when product posts are not salient, they no longer feel like a sufficient signal of identity, attenuating the negative effect of posting. Across studies, I examine the effect of posting identity-relevant products for a variety of identities and across different measures of interest in purchasing and owning products.

3.2 STUDY 1

Study 1 shows that consumers' social media actions can negatively influence their purchase intentions when they post identity-relevant products. Focusing on participants' student identity as the focal identity, I compare purchase intentions for an identity-relevant product after consumers have either posted identity-relevant products, merely searched for identity-relevant products (and did not post) or have not engaged with products on social media.

3.2.1 Method

One hundred and ninety-six undergraduates from a large U.S. university participated in this study as part of a series of unrelated studies conducted during a lab session, in exchange for course credit ($M_{\text{age}} = 21$ years, 50% women). Two individuals failed the screening criteria of being comfortable with English or having a Facebook account and were excluded from the

analyses, resulting in a sample size of 194 students. Participants were randomly assigned to one of three conditions in a single-factor between-subjects design (task: posting, searching, control).

This study was conducted in two ostensibly unrelated parts. Participants first read about a new Facebook feature called “Facebook Curations.” The feature was described as a way to post and curate product preferences on Facebook for themselves and others to see. Participants saw a sample “curation” to make the features and purpose more concrete. Afterwards, participants were given one of three tasks. In the posting condition, participants were instructed to find three products online that represented and showcased their specific college student identity and were told to imagine that they posted these products on their Facebook account. In the searching condition, participants also found three products online that represented their student identity but were told to imagine that they had not posted these products on Facebook. In the control condition, after reading about Facebook Curations, participants moved forward to the second task (see Appendix O for specific study instructions and stimuli). Participants who found and/or posted products provided the URLs and product titles for everything they found in the online survey and then wrote about how each of the products signaled their student identity.

After this, in a seemingly unrelated study, participants indicated their purchase intentions for a backpack that prominently displayed their school name using a Likert scale (1 = “strongly disagree” to 7 = “strongly agree”). See Appendix P for the images of the backpack (and all other dependent variables used across studies). Finally, participants answered additional questions regarding the identity-relevant backpack and standard demographic questions.

3.2.2 Results

3.2.2.1 Feelings Regarding Dependent Variable

I examined if the identity-relevant backpack being considered differed on the dimensions of being an identity-signaling product, useful, and liked using Likert Scales (1 = “strongly disagree” to 7 = “strongly agree”). Across conditions, I did not find any significant differences between groups on how liked the backpack was, how useful it was seen as being, and on how much the backpack signaled school identity (all $p > .311$). Additionally, compared to the midpoint, t-tests showed that the identity-relevant backpack was rated as significantly liked, useful, and something to signal their school identity (all $p < .001$).

3.2.2.2 Purchase Intentions

I predicted that purchase intentions for the identity-relevant backpack would be lower for those who posted products compared to those who searched and those who did not engage with products. To test this, I regressed purchase intentions on a variable representing the posting condition (posting = 1, searching and control = -1) and a variable representing the control condition (control = 1, searching and posting = -1).

The results were consistent with my prediction. The overall model was significant ($F(2, 192) = 103.55, p < .001$). The effect of posting products on purchase intentions was negative ($\beta = -.245, t = -2.33, p = .021$). Specifically, purchase intentions were lower for those who posted products on social media ($M = 3.13, SD = 1.81$) compared to those who searched for, but did not post, products ($M = 3.77, SD = 1.86$), and compared to those who did not engage with products

($M = 4.21$, $SD = 1.94$). Importantly, the purchase intentions for the searching condition did not differ from those in the control condition ($\beta = .221$, $t = 1.35$, $p = .178$).¹⁸

3.2.3 Discussion

Study 1 provides initial evidence that consumers have less interest in purchasing identity-relevant products after they have posted identity-relevant products on social media. In Appendix Q, I replicate these findings in another study (focusing on another focal identity), where participants either posted or just searched for products using their real social media accounts before indicating their purchase intentions for an identity-relevant product ($\beta = -.354$, $t = -2.50$, $p = .014$). Study 2, using a process-by-moderation design (Spencer, Zanna, and Fong 2005), examines how product posting on social media only negatively influences purchase intentions when posts are identity-relevant and publicly visible to others.

3.3 STUDY 2

The purpose of Study 2 is two-fold. First, I test my prediction that posted products only negatively impact purchase intentions if the post is identity-relevant. To examine this, I manipulated the perceived identity-signaling value within the same product domain. Depending on the context, products can be seen as identity-relevant or functional. Clothing, for example, is

¹⁸ There were no effects of timing in the task on purchase intentions ($p = .703$). Gender was a significant covariate ($p = .026$) such that women were less likely to want to purchase the identity-signaling product compared to men. When I included the interactions of gender with my variables representing the posting condition and the control condition, there was no longer a main effect of gender ($p = .116$) and neither interaction was significant (gender*posting: $p = .953$; gender*control: $p = .440$).

less identity-relevant and has less signaling value when thinking about what to wear for cleaning as opposed to going out with others (Berger and Heath 2007). Using this manipulation of identity-relevance, I compare how product posts that express an environmentalist identity versus those that demonstrate how *functional* eco-friendly products are, influence purchase intentions of another identity-relevant product. I predict that when consumers' product posts are not identity-relevant (i.e., are functional), identity-signaling will not be accomplished, and there will be no decreased purchase intentions for another eco-friendly product.

Second, in this study, I use a process-by-moderation design to determine whether the ability to signal identity to others is important for my negative effect. As research has highlighted that identity signals need to be public to communicate identity (Belk 1988; Berger and Heath 2007; Berger and Ward 2010), I predict that product posts that are not visible to others will not fulfill identity-signaling. Therefore, the identity-signaling benefits typically derived from purchase should still be desirable to these individuals, and the negative effect of posting on purchase intentions will be attenuated.

3.3.1 Method

Two hundred and eighty-one members of Amazon Mechanical Turk who declared themselves to be active Pinterest users participated for a nominal payment ($M_{age} = 33.81$ years, 58% women).¹⁹ No participants were dropped. Participants were randomly assigned to one condition in a 2 (posting: identity-relevant, functional) x 2 (visibility of post: public, private) between-subjects design.

¹⁹ Pinterest is a popular social media platform. It is common for users to post products (images, text) on this platform to so-called "boards" that other users can see.

The study contained two ostensibly unrelated parts. In the first part, participants used their real Pinterest account to find and post products to a board. Everyone was instructed to find three eco-friendly items. In the functional posting condition, participants were found “products people can use to help the environment,” while in the identity-relevant condition, people found products “that you would use to show that you are a proud environmentalist” (the manipulation of thinking about a product category as identity-relevant or functional was taken from Berger and Heath 2007, Study 4; see Appendix R for specific study instructions and stimuli). In the public condition, participants were reminded that everyone would see the board they created while participants in the private condition were instructed to create a “secret” board (an option on Pinterest where posted products are only seen by the poster). After this, in a seemingly unrelated task, participants indicated their purchase intentions for an eco-friendly, environmentalist-relevant backpack. Finally, participants answered manipulation checks, questions regarding the backpack, and standard demographic questions.

3.3.2 Results

3.3.2.1 Product Pre-Test

Participants were asked to rate a North Face backpack on a number of dimensions. These included: how much they liked the bag, how eco-friendly it was, and if the bag was something they would buy (all measured on Likert scales from 1 = “strongly disagree” to 7 = “strongly agree”). Compared to the midpoint, t-tests showed that people liked the bag ($t = 7.95, p < .001$), thought it was eco-friendly ($t = 12.97, p < .001$), and it was something they would buy ($t = 6.48, p < .001$).

3.3.2.2 Manipulation Check

Participants indicated whether they followed instructions (1 = “strongly disagree” to 7 = “strongly agree”). Participants in the private condition reported pinning products to a secret board on Pinterest more ($M = 6.76$) than those in the public condition ($M = 1.63$), showing that people followed instructions ($\beta = 5.16$, $t = 21.38$, $p < .01$). There was no main effect of posting ($p = .79$), nor was there an interaction effect ($p = .33$).

3.3.2.3 Feelings Regarding Dependent Variables

After viewing the North Face bag, participants were also asked how much they liked the bag, how eco-friendly it was, if they already owned the bag (or something very similar), and if environmentalists would signal their identity using this bag (1 = “strongly disagree” to 7 = “strongly agree”). Across conditions, I found no main effect of posting (all $p > .08$), visibility (all $p > .18$), or any interaction effects (all $p > .62$) on any of the variables. Additionally, compared to the midpoint, t-tests showed that people did not already own the bag (or something similar), and the evaluated bag was rated as significantly liked, eco-friendly, and something environmentalists would own to signal identity (all $p < .001$).

3.3.2.4 Purchase Intentions

My theory predicted that participants who posted identity-relevant products (vs. posted for functional purposes) should have lower purchase intentions for an eco-friendly bag, but only in the public visibility condition. To test my prediction, I regressed purchase intentions on posting type (functional = -1, identity-relevant = 1), public visibility (private = -1, public = 1), and their

interaction. The overall model was significant ($F(3,277) = 30.58, p < .001$), and the main effects of posting and visibility were both significant (posting: $\beta = -.228, t = -2.79, p = .006$; visibility: $\beta = -.479, t = -5.88, p < .001$).

Importantly, the interaction between the posting type and visibility was significant and consistent with my prediction ($\beta = -.598, t = -7.34, p < .001$). The simple effect of posting type on purchase intentions was negative when participants posted products publicly ($\beta = -.825, t = -6.11, p < .001$). When posts were publicly visible to others, those who posted identity-relevant products had lower purchase intentions ($M = 3.76, SD = 1.91$) than those who posted products from a functional perspective ($M = 5.41, SD = 1.20$). The simple effect of the posting type was significant in the opposite direction when participants privately posted products. When product posts were not visible to others, those who posted identity-relevant products had higher purchase intentions than those who framed their posts as functional ($\beta = .370, t = 3.96, p < .001$; $M_{\text{identity}} = 5.91, SD_{\text{identity}} = 1.10, M_{\text{functional}} = 5.17, SD_{\text{functional}} = 1.14$; see figure 7).²⁰

²⁰ There were no effects of timing in the task on purchase intentions ($p = .543$). There was no effect of gender on purchase intentions when it was included in the model ($p = .589$). When I included the interactions of gender with my variables representing the posting condition and the visibility condition, neither two-way interaction was significant (gender*posting: $p = .478$; gender*visibility: $p = .196$), and the three-way interaction was also not significant ($p = .603$).

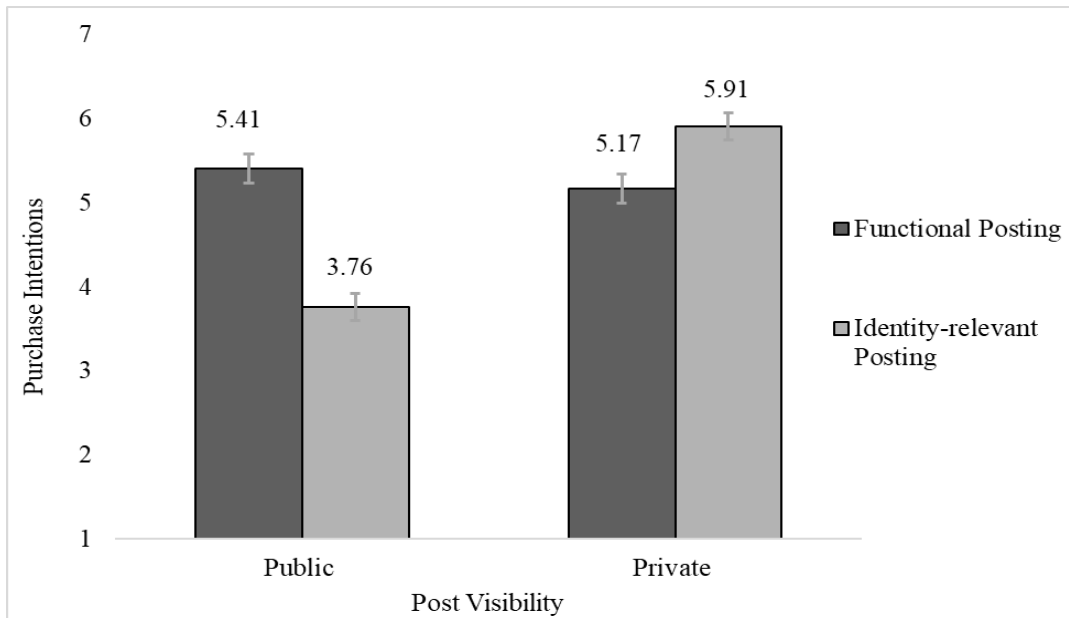


Figure 7: Purchase Intentions by Posting and Visibility

3.3.3 Discussion

In Study 2, I demonstrated that consumers' product posts on social media only negatively impact purchase intentions if two conditions are met: the product posts are identity-relevant *and* publicly visible. When people posted privately, posting identity-relevant products significantly increased purchase intentions. This finding is in line with the research on identity-consistent behavior and expression (Berger and Ward 2010; Escalas and Bettman 2005; Oyserman 2009), where, when people are not able to sufficiently signal their identities to other people, they are motivated to further express, maintain, and reinforce their identities through purchase and consumption. Next, in Study 3, I manipulate the strength of consumers' identities and show how those with strengthened identities may not fulfill their identity-signaling needs to the self, attenuating my effect.

3.4 STUDY 3

Study 3 examines a situation where people can sufficiently signal their identity to others without sufficiently self-signaling. Specifically, a public product post for highly strengthened identities. For strongly held identities, there is greater motivation to self-verify, which increases identity-consistent behavior (Bolton and Reed 2004; Gollwitzer et al. 2009). Therefore, I predict that for strongly held identities, merely posting identity-relevant products does not sufficiently self-verify the identity enough to decrease interest in obtaining identity-relevant products. In this study, I also directly measure my proposed mediators of fulfilled identity-signaling to the self and signaling to others. I examine this in the context of a college student identity and use a consequential willingness-to-pay task to elicit real interest in an identity-relevant product.

3.4.1 Method

Two hundred and four undergraduates from a large U.S. university participated in this study as part of a series of unrelated studies conducted during a lab session, in exchange for course credit ($M_{\text{age}} = 20$ years, 39.5% women). Nine individuals failed the screening criteria of being comfortable with English or having a Facebook account and were excluded from the analyses, resulting in a sample of 195 students. Participants were randomly assigned to one condition in a 2 (posting: identity-relevant, functional) x 2 (identity strength: high, control) between-subjects design.

This study was conducted in two ostensibly unrelated parts. In part 1, participants received \$2.00 in dimes. All participants were told they were receiving this money as part of

participating in the surveys in the lab that day. Once participants confirmed that they received their money, they continued with another study. After completing other studies in the lab session, participants began part 2 and participated in a writing task. In the high identity-strength condition, participants were instructed to write about how being a student at their university was important to their life and their identity while in the control condition, participants were instructed to write about their favorite type of tree, using a task from Kraus and Chen (2009; i.e., what type of leaves it has, how tall it is). In both conditions, participants had to write for at least one minute (see Appendix S for specific wording of writing task across conditions).

After the identity strength prime, participants read about the “Facebook Curations” feature used in Study 1. Participants all developed their own Facebook Curation. In the identity-relevant posting condition, participants found three products online that represented and showcased their specific college student identity. In the functional posting condition, participants found three products that would be useful to their lives as college students (see Appendix O). Participants provided the URLs and product titles for everything they found in the online survey and then wrote about how each of the products signaled their identity (was useful to them), and how these products would be portrayed publicly on their Facebook accounts.

After creating and considering these curations on their social media accounts, participants were asked to complete two counter-balanced identity-signaling scales. One of these scales measured self-signaling (a five-item scale measuring self-identity representation through products, $\alpha = .93$; Arbore, Soscia, and Bagozzi 2014)²¹ while the other measured perceived

²¹ The purpose of this five-item scale is to “capture aspects of a person’s symbolic valuing” for products (Arbore, Soscia, and Bagozzi 2014). Specifically, these items tap into aspects of the self such as what possessing a product says about them and if the product is consistent with their identity-signaling needs. Considering that this scale was built from the self-brand connection scale (Escalas and Bettman 2005) which was intended to measure the extent to which individuals incorporate brands into their self-concept, I believe this is a good scale to capture if a consumer has internally believed (i.e., self-verified) that the posted products provide a clear and accurate signal of who they believe themselves to be and who they want to signal themselves being.

identity-signaling to others (a two-item identity-signal progress scale, $\alpha = .87$; see Appendix T for measures).

Finally, participants completed the lottery portion of the study. Participants were informed they could be randomly chosen to receive a university tote bag. They would have the opportunity to buy the tote bag if they were chosen at a price determined by the computer randomly. Using an adaption of the Becker-DeGroot-Marschak (BDM) method of price elicitation (Becker, DeGroot, and Marschak 1964), participants were told that they could either pay the randomly assigned price if they were chosen (if they stated they would buy the bag at the price given, for example \$1.40) or they would not pay the experimenter, not receive the bag, and keep their money if they were chosen and they had indicated that they did not want to pay for the bag at the elicited price (this method incentivizes participants to provide truthful valuations). Participants were asked their willingness-to-pay for the tote bag at alternating values of \$.10 (e.g., WTP at \$.10, then \$2.00, then \$.20, etc.) that was randomized to start high or start low. After engaging with the WTP task, participants answered questions about the bag they indicated WTP for and answered standard demographics. At the end of each lab session, one student was chosen to pay for and receive the tote bag.

3.4.2 Results

3.4.2.1 Manipulation Check

Using a seven-point Likert Scale (1 = “strongly disagree” to 7 = “strongly agree”), participants were asked about how strongly they associated with their college student identity. I found a main effect of priming where those who were in the high identity strength condition felt more strongly

associated ($M = 5.36$, $SD = 1.27$) than those who were in the control priming condition ($M = 4.96$, $SD = 1.52$; $\beta = .715$, $t = 2.54$, $p = .012$). There was no main effect of posting ($p = .53$) nor was there an interaction effect ($p = .103$).

3.4.2.2 Feelings Regarding Dependent Variable

Participants answered questions regarding the identity-signaling bag they indicated WTP for, to determine if any of these factors differed across conditions. All items (special, boring, felt investment, felt ownership, real ownership of same or similar product) were measured on Likert scales (1 = “strongly disagree” to 7 = “strongly agree.”) I found no main effect of the identity strength priming (all $p > .098$), no effect of posting (all $p > .261$) or interaction effects on any of these variables (all $p > .118$). Looking at one sample t-tests as a robustness check, compared to the midpoint, I confirmed that people liked the bag ($t = 3.60$, $p < .001$) and thought it signaled their student identity ($t = 5.49$, $p < .001$). Participants did not feel as though they already owned the bag ($t = -14.82$, $p < .001$), owned a similar bag already ($t = -2.23$, $p = .027$), or feel a sense of investment in the bag ($t = -16.48$, $p < .001$). The bag was also not considered boring ($t = -9.06$, $p < .001$) or overly special ($t = -16.97$, $p < .001$).

3.4.2.3 Willingness to Pay

I predicted that participants would have a lower WTP for the identity-relevant bag if their posts were also identity-relevant and when they were in the control identity-strength condition. To test this, I regressed WTP on posting (functional = -1, identity-relevant = 1), identity strength (control = -1, high = 1), and their interaction. The overall model was significant ($F(3,191) =$

3.28, $p = .022$). Neither the main effect of posting ($\beta = .099$, $t = 1.77$, $p = .079$) nor the main effect of identity strength were significant ($\beta = -.094$, $t = -1.67$, $p = .096$).

Importantly, the interaction was significant in the direction consistent with my prediction ($\beta = .114$, $t = 2.035$, $p = .043$; see figure 8). Specifically, the simple effect of posting in the control identity-strength condition was such that those who posted identity-relevant products had lower WTP for the identity-relevant bag ($M = \$.86$, $SD = \$.79$) than those who posted functional products ($M = \$1.28$, $SD = \$.73$; $\beta = -.209$, $t = -2.59$, $p = .011$). The simple effect of posting in the high identity-strength condition was not significant ($\beta = .020$, $t = .261$, $p = .795$; $M_{\text{identity}} = \$1.29$, $SD_{\text{identity}} = \$.81$, $M_{\text{functional}} = \1.25 , $SD_{\text{functional}} = \$.78$), consistent with my prediction.²²

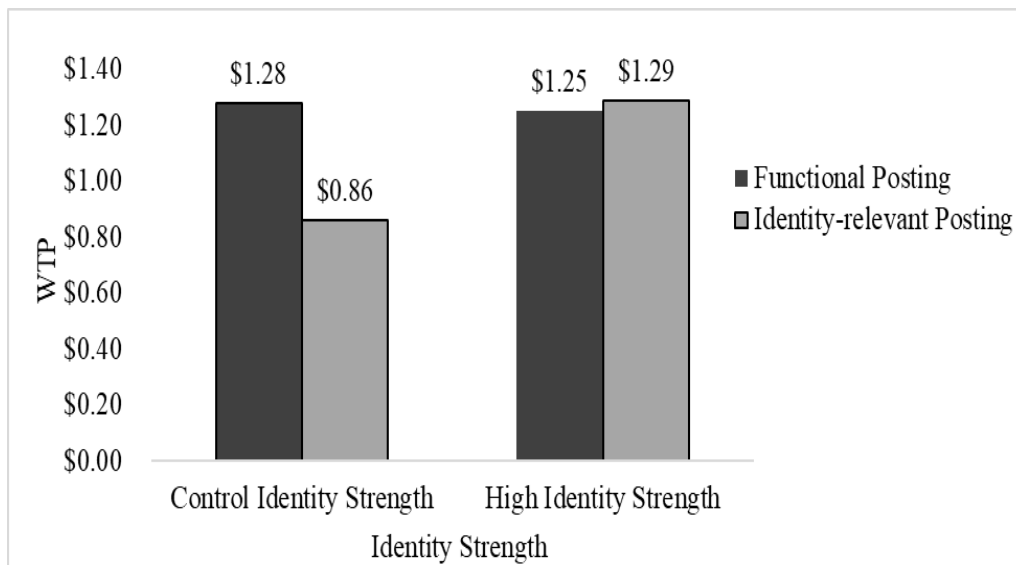


Figure 8: WTP by Posting and Identity-Strength

3.4.2.4 Moderated Mediation

As mentioned earlier, I suggest that identity-relevant posting on social media can allow people to both sufficiently signal an identity to others *and* self-verify; which in combination should

²² There were no effects of timing in the task on WTP ($p = .761$). There was no effect of gender on WTP when it was included in the model ($p = .204$). When I included the interactions of gender with my variables representing the posting condition and the strength condition, neither two-way interaction was significant (gender*posting: $p = .967$; gender*strength: $p = .189$), and the three-way interaction was also not significant ($p = .933$).

decrease the WTP for identity-relevant products. However, in some cases posting will not be enough to achieve one's identity-related needs. Indeed, if the negative effect of posting on WTP for identity-relevant products is due to fulfilment of such needs, I should not see this effect in situations where posting alone is seen as an insufficient identity-signal. Thus, in this study I predicted that for participants with a strongly activated student identity, merely posting identity-relevant products would not sufficiently self-verify the identity enough to lower their WTP for the identity-relevant backpack. On the other hand, I did not believe that the extent to which others would infer peoples' identities (i.e., other-signaling) would differ across the identity strength conditions as all posts were publicly visible.

To examine how both signaling to the self and signaling to others would drive lowered WTP in the control identity-strength condition (and show that only a lack of self-verification would mitigate this effect for those in the high identity-strength condition), a moderated mediation model was estimated using PROCESS Model 8 (Hayes 2013). I included my measures of self-signaling and other-signaling as parallel mediators and identity strength as the moderator. As predicted, the index of moderated mediation was significant for self-signaling ($b = -.06$, $SE = .03$, $CI_{95} [-.14, -.01]$) but not for other-signaling ($b = .02$, $SE = .04$, $CI_{95} [-.06, .11]$). Consistent with my prediction that WTP is only influenced after product posts fulfill identity-signaling needs, a conditional indirect effects analysis demonstrated that both self-signaling ($b = -.07$, $SE = .03$, $CI_{95} [-.14, -.02]$) and other-signaling ($b = -.07$, $SE = .04$, $CI_{95} [-.15, -.006]$) mediate the effect of posting on WTP in the control identity-strength condition. However, when identity strength was high, the indirect effect on WTP of posting an identity-relevant product was only significant for other-signaling ($b = -.10$, $SE = .03$, $CI_{95} [-.17, -.04]$) and not for self-signaling ($b = .009$, $SE = .02$, $CI_{95} [-.03, .05]$; see table 7).

Table 7: Moderated Mediation

Antecedent	Consequent											
	M ₁ (Self-Signaling)				M ₂ (Other-Signaling)				Y (WTP)			
	Coeff.	SE	<i>t</i>	<i>p</i>	Coeff.	SE	<i>t</i>	<i>p</i>	Coeff.	SE	<i>t</i>	<i>p</i>
X (Posting)	.3253	.1041	3.1263	.0020	.4106	.1100	3.7314	.0002	-.1743	.0536	-3.2503	.0014
M ₁ (Self Identity-Signaling)	---	---	---	---	---	---	---	---	-.1221	.0344	-3.5459	.0005
M ₂ (Other Identity-Signaling)	---	---	---	---	---	---	---	---	-.2078	.0326	-6.3827	<.0001
W (Identity Strength)	.0195	.1041	.1870	.8519	-.1013	.1100	-.9203	.3585	.0455	.0505	.9019	.3682
Posting* Identity Strength	-.2521	.1041	-2.4228	.0163	-.0583	.1100	-.5299	.5967	.0979	.0511	1.9155	.0569
Constant	3.8605	.1041	37.0992	<.0001	4.7510	.1100	43.1767	<.0001	1.7043	.1995	8.5447	<.0001
Model Summary	R ² = .0702				R ² = .0682				R ² = .2160			
	F(3, 191) = 5.0362, <i>p</i> = .0022				F(3, 191) = 4.8813, <i>p</i> = .0027				F(5, 189) = 10.9108, <i>p</i> < .0001			

3.4.3 Discussion

Study 3 showed how social media posting has to sufficiently signal identity—both to the self and to others—to see a decreased willingness to pay for identity-relevant products. In this study, using an incentive compatible design, I found that differences in real willingness-to-pay only arose when consumers, through their product posts, strongly self-verified their identity while simultaneously signaling their student identity to others. When consumers had a strongly activated student identity, they were more motivated to signal this identity, and consequently, their identity-relevant posts were not seen as sufficient self-signals. Thus, there was no lowered willingness-to-pay for another identity-relevant product. Critically, this attenuation of the negative effect of product posting occurred despite successful identity-signaling to others.

Across studies, I have seen decreased interest in purchasing products after consumers have posted identity-relevant products on social media that signal their identity to themselves and others. However, in these studies, the product considered for purchase was also identity-relevant. To determine whether my effect is due to identity-relevant product posts satisfying the need for other identity-relevant goods (vs. general product satiation), in the next two studies, I examine boundaries to my effect.

3.5 STUDY 4A

Study 4A examines a key boundary to my effect—that identity-relevant posting *only* impacts intentions to purchase other identity-relevant products, not products generally. I have argued that posting identity-relevant products allows consumers to virtually signal identity, becoming a substitute for actual purchase. This implies that posting identity-relevant products should only influence purchase intentions towards products that could, through actual ownership, also signal identity. In other words, product posting should only serve as a substitute for actual purchase for products that achieve the same value: signaling identity. In this study, I demonstrate that identity-relevant product posts only decrease intentions to purchase other identity-relevant products; not products generally. Products that are considered for reasons other than symbolic value (e.g., for useful or functional properties) are not devalued through the identity-signaling derived from product posting.

3.5.1 Method

One hundred and ninety-six undergraduates from a large U.S. university participated in this study as part of a series of unrelated studies conducted during a lab session, in exchange for course credit ($M_{\text{age}} = 20$ years, 50% women). Eleven individuals either failed to pass the screening criteria of being comfortable with English or having a Facebook account or were unable to complete the study and were excluded from the analyses ($N = 185$). Participants were randomly assigned to one condition in a 2 (posting: identity-relevant, functional) x 2 (product evaluated: identity-relevant, functional) between-subjects design.

This study was conducted in two seemingly unrelated parts. In part 1, participants developed the same type of Facebook Curations as in Studies 1 and 3 (found products to signal student identity or found useful products for college students). Afterwards, in a seemingly unrelated study, participants indicated their purchase intentions for a backpack. Participants were randomly assigned to indicate their purchase intentions for a plain black backpack (functional) or an identical backpack that prominently displayed their school name (identity-relevant). After indicating purchase intentions and bag related manipulation check questions, in counter-balanced order, participants answered the same “self-identity” and “felt identity-signaling to others” measures through their virtual products and Facebook Curation as in Study 3. Finally, participants answered standard demographic questions.

3.5.2 Results

3.5.2.1 Manipulation Check

Participants indicated whether they followed instructions (1 = “strongly disagree” to 7 = “strongly agree”). Participants in the identity-signaling posting condition reported finding products that more strongly signaled identity ($M = 4.53$) than those in the functional posting condition ($M = 3.00$), showing that people followed instructions ($\beta = 1.19$, $t = 3.27$, $p = .001$). There was no main effect of product evaluated ($p = .70$), nor was there an interaction effect ($p = .19$).

3.5.2.2 Feelings Regarding Dependent Variables

I examined if the backpacks being considered differed on the dimensions of being an identity-signaling product, useful, and liked using Likert Scales (1 = “strongly disagree” to 7 = “strongly agree”). Paired-samples t-tests showed that the identity-relevant bag was seen as being a better signal of school identity ($t = 13.70$, $p < .001$), while both bags showed no significant difference in how much the products were seen as being useful ($t = .701$, $p = .484$), or liked ($t = -1.42$, $p = .156$).

3.5.2.3 Purchase Intentions

Based on my theory, I predicted that participants would have lower purchase intentions for the identity-relevant backpack only if they had posted identity-relevant (vs. functional) products. To test my predictions, I regressed purchase intentions on posting (functional = -1, identity-relevant = 1), product evaluated (functional = -1, identity-relevant = 1), and the interaction. The overall

model was significant ($F(3,181) = 3.67, p = .013$). I found that neither the main effect of posting ($\beta = -.055, t = -.387, p = .699$), nor the main effect of product evaluated was significant ($\beta = -.221, t = -1.55, p = .123$).

Importantly, the interaction between posting and product evaluated was significant in the direction consistent with my prediction ($\beta = -.409, t = -2.865, p = .005$; see figure 9). Specifically, the simple effect of posting was such that participants who signaled their school identity through identity-relevant posting had lower purchase intentions for the identity-relevant bag ($M = 3.21, SD = 1.95$) than those who posted about functional products ($M = 4.14, SD = 1.86$; $\beta = -.464, t = -2.33, p = .022$). The simple effect of posting was not significant when participants posted identity-relevant products then evaluated the functional backpack ($\beta = .354, t = 1.73, p = .087$; $M_{\text{identity}} = 4.47, SD_{\text{identity}} = 1.97, M_{\text{functional}} = 3.76, SD_{\text{functional}} = 1.98$).²³

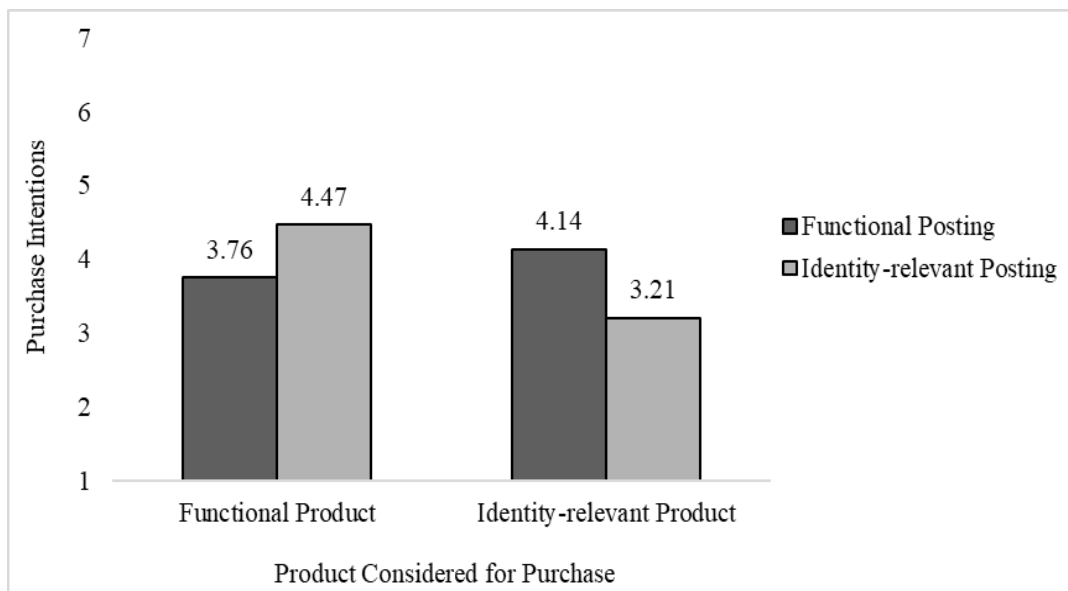


Figure 9: Purchase Intentions by Posting and Product Evaluated

²³ There were no effects of timing in the task on purchase intentions ($p = .845$). There was no effect of gender on purchase intentions when it was included in the model ($p = .265$). When I included the interactions of gender with my variables representing the posting condition and the product evaluated condition, the two-way interaction between gender and posting was not significant ($p = .332$), and the three-way interaction was not significant ($p = .618$). The interaction between gender and the product seen was significant ($p = .040$) such that women had significantly lower purchase intentions for the identity-relevant product than men ($p = .022$).

3.5.2.4 Mediated Moderation

I predicted that participants would have lower purchase intentions for the identity-relevant backpack only if they had posted identity-relevant (vs. functional) products. I predicted this would occur as only identity-relevant posting allows participants to fulfill their identity-signaling needs. This identity-signaling fulfillment is accomplished due to the greater degree of self-signaling and other identity-signaling that occurs from identity-relevant posting compared to functional posting. I tested these predictions using PROCESS Model 15 (with 10,000 bootstrapped resamples; Hayes 2013), so that self-signaling and other-signaling were parallel mediators, and the product evaluated was the moderator (as I predicted this process would not influence purchase intentions for the functional backpack).

I found a significant index of mediated moderation for self-signaling ($b = -.42$, $SE = .20$, $CI_{95} [-.92, -.10]$) and for other-signaling ($b = -.31$, $SE = .17$, $CI_{95} [-.66, -.02]$). Consistent with my prediction that purchase intentions are only influenced for identity-relevant products after product posts are identity-relevant, a conditional indirect effects analysis demonstrated that both self-signaling ($b = -.22$, $SE = .13$, $CI_{95} [-.55, -.02]$) and other-signaling ($b = -.18$, $SE = .11$, $CI_{95} [-.43, -.002]$) mediated the effect of posting on purchase consideration when the dependent variable being considered was also identity-relevant. Conversely, when the product being evaluated was the functional backpack, neither indirect effect was significant (self-signal: $b = .20$, $SE = .13$, $CI_{95} [-.03, .50]$; other-signal: $b = .13$, $SE = .12$, $CI_{95} [-.08, .41]$; see table 8).

Table 8: Mediated Moderation

Antecedent	Consequent											
	M ₁ (Self-Signaling)				M ₂ (Other-Signaling)				Y (Purchase Intentions)			
	Coeff.	SE	<i>t</i>	<i>P</i>	Coeff.	SE	<i>t</i>	<i>p</i>	Coeff.	SE	<i>t</i>	<i>p</i>
X (Posting)	.7632	.1277	5.976	< .0001	.6798	.1280	5.3116	< .0001	-.0969	.1459	-.6645	.5072
M ₁ (Self Identity-Signaling)	---	---	---	---	---	---	---	---	-.0116	.1083	-.1072	.9148
M ₂ (Other Identity-Signaling)	---	---	---	---	---	---	---	---	-.0398	.1077	-.3698	.7120
V (Product Evaluated)	---	---	---	---	---	---	---	---	1.6736	.3433	4.8746	< .0001
Self-Signal* Product Evaluated	---	---	---	---	---	---	---	---	-.2722	.1083	-2.5142	.0128
Other Signal* Product Evaluated	---	---	---	---	---	---	---	---	-.2248	.1077	-2.0868	.0383
Posting*Product Evaluated	---	---	---	---	---	---	---	---	-.0570	.1459	-.3908	.6964
Constant	3.763	.1277	29.469	< .0001	3.846	.1280	30.053	< .0001	4.1338	.3433	12.041	< .0001
Model Summary	R ² = .1633				R ² = .2238				R ² = .2238			
	F(1, 183) = 35.7144, <i>p</i> < .0001				F(1, 183) = 28.2127, <i>p</i> < .0001				F(7, 177) = 7.2923, <i>p</i> < .0001			

3.5.3 Discussion

In Study 4A, I determine that a boundary condition to my effect is that identity-relevant posts lead to lowered purchase *only* for other identity-relevant products. Identity-relevant posting fulfills the consumer identity-signaling needs typically derived from purchase, consumption, and ownership. However, in the case of products that are considered for reasons outside of their symbolic value (e.g., for useful or functional properties), the identity-signaling derived from product posting is irrelevant in impacting purchase as my effect is not driven by general product satiation.

In Study 4B, using a process-by-moderation design, I further specify that identity-relevant product posts can substitute purchase *only* for products within the same identity-

signaling domain rather than products generally. In this study, to determine that my effects are specific to just the identity that has been signaled, I focus on two separate focal identities (i.e., the actual self and the ideal self) in comparison to a control condition. I additionally focus on two focal identities to highlight that this effect is driven through substitution for identities that have been virtually signaled (vs. an increased interest in other non-signaled identities).

3.6 STUDY 4B

Study 4B builds on the boundary effect determined in Study 4A—that identity-relevant posting *only* impact intentions to purchase other identity-relevant products. In this study, I go one step further; specifically, I predict this effect will only extend to products within the same identity-domain as the signaled identity. This is because the identity-signaling derived from product posting is the key substitute for purchase. In the case of products that are identity-relevant, but that have not been posted on social media, no symbolic value for this identity has been achieved as these products are separate from the “symbolic constellation of products” that define the posted identity (Reed et al. 2012). For example, a consumer who posts products relevant to her environmentalist identity should only have lower purchase intentions for other products that are relevant to her being an environmentalist; not for products related to another identity she may hold, like being a student. In this scenario, the student identity has not been virtually signaled through her environmentalist identity-relevant product posts, and consequently, purchase intentions for the student identity should not be impacted.

To examine this, in Study 4B, I had all participants find products prior to the social media posting task that represented their three different self-concepts (i.e., actual self *and* ideal self *and* non-self-representative). Then within the study, participants were randomly assigned to post products from one category of their self-concept (i.e., actual self *or* ideal self *or* non-self-representative). Lastly, to understand whether the effect seen thus far is identity-relevant product posts acting as a substitute for other identity-relevant products, people were randomly assigned to indicate purchase intentions for the products from one of their self-concepts (i.e., the identity they posted or another non-posted identity). Thus, participants gathered products relevant to all three self-concept conditions, but only posted about one, and then provided purchase intentions for one, allowing us to construct a fully-crossed design of posting and interest within and across identity-relevance.

3.6.1 Method

Two hundred and ninety members of Amazon Mechanical Turk who declared themselves to be active Pinterest users participated for a nominal payment ($M_{\text{age}} = 34$ years, 71% women). No participants were dropped. Prior to the study, all participants found products to represent their ideal self, actual self, and non-representative products and put those into the online survey. Afterwards, participants were randomly assigned to a condition in a 3 (identity posted: ideal self, actual self, non-self-representative control) x 2 (products evaluated: ideal self, actual self) between-subjects design.

The study contained three parts (see Appendix U for specific procedural stimuli). Prior to any manipulations, everyone found nine products on Pinterest within the clothing and fashion

accessories category (i.e., an identity-relevant product category; Berger and Heath 2007; Shavitt and Nelson 1999) to create an initial product set. All participants found three products that represented their ideal self-concept (i.e., who they want to be), three products representing their actual self-concept (i.e., who they currently are), and three products representing a control condition (i.e., products that were not self-representative; self-concept language taken from Shah, Higgins, and Friedman 1998). Participants *did not* pin these products to Pinterest. Participants only provided the URLs and product names into the online survey.

Next, participants began the actual experiment by creating a new public Pinterest board. They were randomly instructed to create a board that represented one of their identity-categories (i.e., ideal self *or* actual self *or* control/not self-representative). To create these boards, participants used the three items from their initial product set that represented the category they were randomly assigned to post (i.e., used ideal self-products from initial set if assigned to create ideal self-board) and pinned these items to their Pinterest board.

Lastly, participants were randomly assigned to indicate purchase intentions for the products from one of their initial product sets (either their actual self *or* ideal self-products). This category did not have to be the same as the one they posted. Participants indicated their purchase intentions on a Likert scale (1 = “strongly disagree” to 7 = “strongly agree”) for each of the three randomly ordered products. I additionally collected information about the perceived liking and attainability of the products they evaluated and standard demographic questions.

3.6.2 Results

3.6.2.1 Manipulation Check

Participants indicated whether they followed instructions regarding the products they posted (“The products I pinned reflect who I am;” 1 = “strongly disagree” to 7 = “strongly agree”). There were main effects of actual self-posting ($M = 6.16$; $\beta = 1.30$, $t = 12.15$, $p < .001$) and ideal self-posting ($M = 5.93$; $\beta = 1.19$, $t = 11.09$, $p < .001$) such that in both of these conditions compared to the control posting condition ($M = 3.56$), they felt as though the products they posted reflected their identity. There was no significant difference between the ideal and actual self-posting conditions ($p = .330$). There was no main effect of the product evaluated ($\beta = .117$, $t = 1.08$, $p = .280$), no interaction between actual self-posting and product evaluated ($\beta = -.018$, $t = -.164$, $p = .870$), and no interaction between ideal self-posting and product evaluated ($\beta = .043$, $t = .403$, $p = .687$).

3.6.2.2 Feelings Regarding Dependent Variables

Participants rated their liking and the perceived attainability for three products (leaving me with 870 observations overall). I created a dependent variable that represented the average liking or attainability towards all three products (i.e., a measure of liking or attainability for the three products in the ideal self or actual self-category). To test my predictions, I used a random effects model to regress each variable on the extent to which participants indicated liking or attainability by a variable representing posting actual self-products (actual or control posts = -1, ideal post = 1), a variable representing posting ideal self-products (ideal or control posts = -1, actual post =

1), the products evaluated (ideal self = -1, actual self = 1), and the two-way interactions with a random effect to control for multiple observations per participant.

The overall model on liking was not significant ($F(5, 864) = 1.109, p = .354$). I found no main effects or interactions on the liking of products evaluated (all $p > .15$). The overall model on attainability was significant ($F(5, 864) = 12.35, p < .001$). I found no main effect of identity posting category for the variables representing actual or ideal self-posting (both $p > .21$). There was a significant main effect of the product category evaluated ($\beta = .442, t = 7.40, p < .001$) where actual self-products were seen as more attainable ($M = 5.97$) than ideal self-products ($M = 5.34$). I also found significant interaction effects for the ideal self-posting and product evaluated ($\beta = -.127, t = -2.14, p = .032$), and a significant interaction effect for the ideal self-posting and product evaluated ($\beta = .245, t = 4.17, p < .001$).

3.6.2.3 Purchase Intentions

Based on my theory, participants should have lower purchase intentions for identity-relevant products, only when the products being evaluated were previously posted. For example, I would only expect to see lowered purchase intentions for ideal self-products among participants who already posted ideal self-products on Pinterest. The interest in ideal self-products should not be lowered for people who posted control or actual self-products as no ideal self-signaling occurred, and thus there was no virtual action that would have behaved as a substitute for these products.

Participants rated their purchase intentions for three products (leaving us with 870 observations overall). I created a dependent variable that represented the average purchase intention towards all three evaluated products (i.e., purchase intentions for the three ideal or actual self-products; $\alpha = .96$). To test my predictions, I used a random effects model to regress

each variable on the extent to which participants indicated purchase intentions by a variable representing posting ideal self-products (actual or control posts = -1, ideal post = 1), a variable representing posting actual self-products (ideal or control posts = -1, actual post = 1), the product category evaluated (ideal self-products = -1, actual self-products = 1), and the two-way interactions with a random effect to control for multiple observations per participant.

The overall model was significant ($F(5,864) = 53.11, p < .001$). There were main effects of actual self-posting ($\beta = -.473, t = -7.53, p < .001$), ideal self-posting ($\beta = -.526, t = -8.32, p < .001$), and the product evaluated ($\beta = .302, t = 4.73, p < .001$). In line with my predictions, both the interaction between actual self-posting and product evaluated ($\beta = -.293, t = -4.67, p < .001$), and ideal self-posting and product evaluated were significant ($\beta = -.487, t = -7.70, p < .001$).

I next examined the simple effect of the product evaluated across the three different types of posting in social media (i.e., how each type of posting influenced purchase intentions). When consumers posted actual self-products, they had significantly lower purchase intentions for the actual self-products ($M = 4.46, SD = 1.75$) compared to the ideal self-products ($M = 5.41, SD = 1.41$; $\beta = -.478, t = -5.09, p < .001$). When consumers posted ideal self-products, they had significantly lower purchase intentions for the ideal self-products ($M = 3.75, SD = 1.88$) compared to the actual self-products ($M = 5.91, SD = .99$; $\beta = 1.08, t = 11.84, p < .001$). I found no significant differences in purchase intentions between actual self ($M = 5.99, SD = 1.41$) and ideal self-products ($M = 5.77, SD = 1.47$) after consumers posted control (i.e., non-self-representative) products ($\beta = .108, t = 1.30, p = .195$; see Figure 10).²⁴

²⁴ There was no effect of gender on purchase intentions when it was included in the model ($p = .145$). When I included the interactions of gender with each of my variables, and the two-way interactions with a random effect to control for multiple observations per participant, nothing was significant (all $p > .484$).

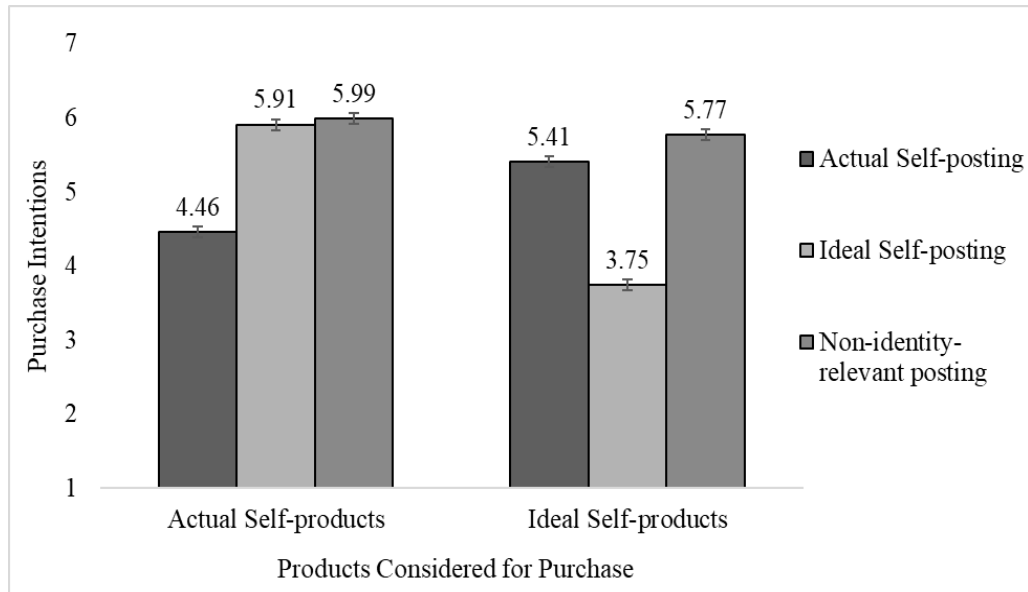


Figure 10: Purchase Intentions by Posting and Product Evaluated

3.6.3 Discussion

The results of Study 4B expand on the findings of Study 4A in important ways. First, I replicate the finding that identity-relevant product posts do not reduce purchase intentions for products generally. The negative effect of identity-relevant product posts on purchase intentions happened only when participants indicated purchase intentions for the same identity-relevant products as those posted virtually. This effect did not extend to other types of identity-relevant products that were not first posted on social media.

Second, I observe that the driver of purchase intentions is, in fact, a decreased interest for the identity-relevant products people posted due to fulfilling identity-signaling needs (vs. an increase of interest in other, non-posted identity-relevant products). The interest in purchasing ideal self-products did not differ between those who posted actual self or control products ($p = .081$), nor did the interest in purchasing actual self-products differ between those who posted ideal self or control products ($p = .664$). These findings highlight that my effect is specifically a

decrease in purchase intentions for identity-relevant products that have signaled through product posting on social media, rather than an increased interest in obtaining products that have not yet been signaled. In my last study, I examine how the salience of identity-relevant product postings influences long-term purchase intentions.

3.7 STUDY 5

In Study 5, I examine the longer-term consequences of identity-relevant posting on purchase intentions towards products that are considered identity-relevant. Traditionally, identity signals are physical items that people own and can consume repeatedly, however, product posts are not necessarily top of mind, and thus may not be strong identity signals after the initial act of posting. To examine whether peoples' actions on social media can have lasting implications on peoples' purchase intentions, I manipulated the salience of these posts at the time of product choice. To examine this, I manipulated the salience of peoples' identity-relevant product posts at the time of product choice. I re-contacted people one week after they initially posted environmentalist-relevant products on Pinterest to either a publicly or privately visible board. When I re-contacted participants, I either had them revisit (or not revisit) their previous posts before making a real product choice between identity-relevant and other non-relevant products.

I predict that when the salience of public identity-relevant product posts is low, product posting is a weaker (and likely insufficient) identity signal, and subsequently, consumers will seek out other signals of their identity (e.g., identity-relevant products). Private identity-relevant posts should not signal identity to others, and consequently, will not fulfill peoples' identity-

signaling regardless of the salience of the product post. In this study, I additionally explore some possible alternative mechanisms.

3.7.1 Method

Three hundred and sixty members of Amazon Mechanical Turk who declared themselves to be active Pinterest users initially participated for a nominal payment. In this study, I only included participants who responded and completed the online surveys across two points of contact one week apart in the analysis, which resulted in a sample size of 266 people ($M_{\text{age}} = 33.84$ years, 70% women)²⁵. Participants were randomly assigned to one condition in a 2 (visibility: public, private) x 2 (salience of posting: low, high) between-subjects design. All participants in this study posted products that were relevant to their environmentalist identity.

The study at Time 1 contained two ostensibly unrelated parts. First, participants all engaged in the same identity-relevant posting task from Study 2. Everyone was instructed to find products “that you would use to show that you are a proud environmentalist.” Specifically, in the public condition, participants were reminded that everyone would see their board while those in the private condition were instructed to create a “secret” board that no one else would see. Afterwards, in counter-balanced order, and counter-balanced if measured before or after the dependent variable, participants answered the same “self-signal” and “signaling to others” measures as in Studies 3 and 4A (see Appendix T).

Next, in a seemingly unrelated study, in randomized order, participants saw four bags (two eco-friendly and two-functional) and indicated how much they liked each bag, how eco-

²⁵ From the initial 360 participants, 135 were retained from the private condition and 131 from the public condition. There were no meaningful demographic differences between those included or excluded from the final analysis.

friendly each bag was, and how useful each bag appeared (1 = “strongly disagree” to 7 = “strongly agree”). Once participants evaluated all four bags, they were told that everyone who completed the survey would be entered in to a lottery to receive one of the bags, and subsequently chose a bag they would like to win (all of which were similarly priced and available on Amazon). Next, participants answered scales to measure impression management concerns (White and Peloza 2009), psychological ownership of posted products (Shu and Peck 2011), and standard demographic questions. At the end, everyone was informed that a follow-up survey would be available in a week’s time.

One week later, I re-contacted participants to do my Time 2 survey. Everyone who was contacted had completed the Time 1 survey. Once participants agreed to do the Time 2 survey, they were randomly assigned to either re-engage with the products they posted on Pinterest that represented their environmentalist identity (high salience condition), or to not re-engage with these products (low salience condition). Individuals in the high salience condition were instructed to sign into their Pinterest accounts, look at the products they pinned representing their environmentalist identity the week before, and write in the online survey how these products were relevant to their environmentalist identity. In the low salience condition, participants, after confirming they took the Time 1 survey, were moved forward in the online survey without being asked to go onto Pinterest.

Afterwards, participants saw the same selection of four bags from Time 1 and were told to choose a bag they would want to receive. Participants were informed that if they were to win the lottery, they would receive the bag they chose at this time, not the bag chosen one week earlier. Lastly, participants answered standard demographic questions. The winner was contacted

and sent an Amazon gift card for the value of their bag (see Appendix V for specific study instructions and stimuli).

3.7.2 Results

3.7.2.1 Manipulation Check

Using Likert Scales (1 = “strongly disagree” to 7 = “strongly agree”), participants indicated whether they followed the task instructions. Participants in the private condition reported pinning products to a secret board on Pinterest significantly more ($M = 6.50$) than those in the public condition ($M = 1.40$) showing that people followed instructions ($\beta = 5.10, t = 38.70, p < .001$).

3.7.2.2 Feelings Regarding Dependent Variables

I checked if any differences existed between conditions for how much participants desired to be seen as environmentalists prior to the Pinterest task (1= “not at all” to 7 = “a great deal”). As well, when viewing each of the bags, participants indicated how much they liked each bag, how eco-friendly the bags were seen as being, and how useful each bag seemed (1 = “strongly disagree” to 7 = “strongly agree”). I found no main effect on desire to affiliate with environmentalists ($p = .15$). For all four bags, t-tests showed that, compared to the midpoint, each bag was rated as significantly liked and significantly useful (all $p < .001$). Only the two eco-friendly bags were rated as being significantly eco-friendly (both $p < .001$).

3.7.2.3 Time 1 Choice Results

Based on my theory, participants in the public visibility condition should have chosen to receive an identity-relevant, eco-friendly bag, less often than the participants in the private visibility condition. As participants chose from four possible bags, I created a dependent measure that represented choosing one of the two identity-relevant eco-friendly bags or one of the two functional bags (functional bags = 0, identity-relevant eco-friendly bags = 1). I ran a binary logistic regression of choice on visibility and found a significant main effect of visibility on the choice of an eco-friendly bag ($\beta = -.341$, $\chi^2 = 5.26$, $p = .022$, $\text{Exp}(B) = .711$). People in the public condition were significantly less likely to choose an identity-relevant eco-friendly bag (70%) compared to those in the private condition (82.5%).

3.7.2.4 Mediation through Identity-signaling

I predicted that participants would have lower choice of the identity-relevant eco-friendly bags only in the public visibility condition. I believed this would occur because only those who posted products publicly on social media would signal their environmentalist identity to both the self and to others. Participants who posted products privately should not be have been able to signal identity to others, increasing their choice for other identity-relevant products that signaled identity.

Using PROCESS Model 4 (with 10,000 bootstrapped resamples; Hayes 2013), I estimated the mediation of visibility (private = -1, public = 1) on choice of an identity-relevant eco-friendly bag with self-signaling and other-signaling as parallel mediators. Results revealed that visibility predicted the degree of other-signaling ($b = .60$, $SE = .10$, $CI_{95} [.42, .79]$) while it did not predict the degree of self-signaling ($b = .11$, $SE = .08$, $CI_{95} [-.04, .26]$). The indirect effect

of other-signaling was significant ($b = -.15$, $SE = .07$, $CI_{95} [-.29, -.02]$) while the indirect effect of self-signaling was not significant ($b = .02$, $SE = .02$, $CI_{95} [-.007, .09]$).²⁶

3.7.2.5 Alternative Possible Mechanisms

I ran mediation analyses using PROCESS Model 4 (with 10,000 bootstrapped resamples; Hayes 2013) from visibility to product choice with satiation (measured as time spent posting products on Pinterest), impression management, and psychological ownership as mediators to determine if any of these alternative explanations explain my effect. Visibility did not predict satiation or psychological ownership (both $p > .15$), while visibility did predict impression management concerns ($\beta = .14$, $p = .042$). None of these variables mediated the relationship between visibility and choice (all 95% CI contained 0).

3.7.2.6 Time 2 Choice Results

I predicted that one week later, the visibility of identity-relevant product posts would only still impact the choice of an identity-relevant product if the product posts, and their subsequent identity-signaling value, from a week ago were made salient. I again created a new dependent measure that represented choosing one of the two identity-relevant eco-friendly bags or one of the two functional bags (functional bags = 0, eco-friendly bags = 1). I ran a binary logistic regression of choice on visibility (private = -1, public = 1), salience (low = -1, high = 1), and their interaction. There was no main effect of visibility ($p = .187$), or a main effect of salience ($p = .920$). There was however, a significant interaction ($\beta = -.229$, $\chi^2 = 4.12$, $p = .042$, $\text{Exp}(B) =$

²⁶ While there is no significant difference on the degree of self-signaling participants felt from their public or private identity-relevant posts, in both cases, this occurred due to participants feeling as though they had sufficiently signaled their identities to themselves ($M_{\text{public}} = 5.22$; $M_{\text{private}} = 5.38$), rather than because self-signaling was irrelevant to their overall fulfillment of their identity-signaling needs.

.795). The simple effect of visibility showed that participants who publicly posted still chose an identity-relevant bag less often ($M = 74\%$) one week later compared to those who privately posted when salience was high ($M = 86\%$; $\beta = -.378$, $\chi^2 = 4.98$, $p = .026$). This effect of visibility was no longer significant when the salience of the product posts was low ($M_{\text{public}} = 82\%$ vs. $M_{\text{private}} = 80\%$; $\beta = .08$, $\chi^2 = .289$, $p = .591$; see figure 11).²⁷

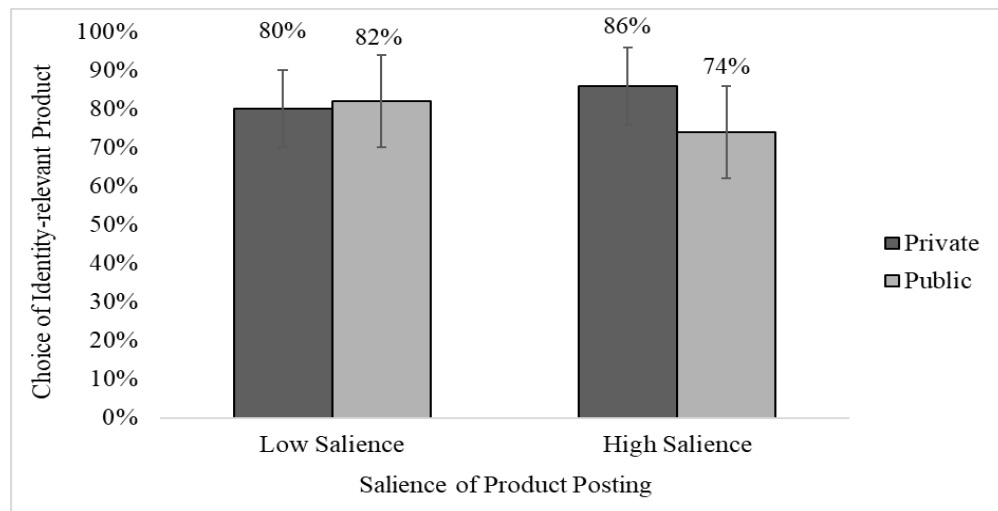


Figure 11: Choice of Identity-relevant Product by Visibility and Salience of Post

3.7.3 Discussion

Study 5 shows that identity-relevant product posts decrease the choice of similar identity-relevant products only when posting signals identity to the self, to others, and are salient. This occurred only when posts were publicly shared, as people were unable to signal to others when identity-relevant posts were private. Importantly, when their product posts and corresponding identity-signaling was no longer salient, regardless of their fulfillment of identity-signaling

²⁷ At Time 1 and Time 2, adding gender to the binary logistic regression of choice found no effect of gender (time 1: $p = .440$; time 2: $p = .216$). Interacting gender with visibility in both models was not significant (both $p > .405$), and interacting gender with salience at Time 2 ($p = .447$), and the three way interaction at Time 2 were not significant ($p = .651$).

immediately after posting, the negative effects on the real choice of another identity-relevant product were attenuated.

3.8 GENERAL DISCUSSION

As marketing is increasingly focused on using social media to encourage consumer engagement and the generation of “earned media,” understanding the consequences of consumers posting products is essential. Conceptually, I examine consumers’ posting actions through the lens of identity-signaling. Research has established that consumers utilize brands and products not only for their functional benefits but also to appropriate the products’ symbolic value, and this is no different for virtual compared to real products (Belk, Bahn, and Mayer 1982; Levy 1995). Across six experiments, I found that consumers’ identity-relevant product posts on social media led to *decreased* interest in purchasing those and similar identity-relevant products. This substitution effect occurred when consumers were able to satisfy their identity-signaling needs through self-verification and signaling to others, decreasing purchase intentions for identity-relevant products that signal the identity posted on social media.

Considering that my experiments encourage participants to engage in specific behavior, a possible limitation of this work is that individuals who choose to post identity-relevant products in general may exhibit different behavior after posting than individuals who are “prompted” to engage in behavior. To address this concern, I collected some preliminary evidence from Pinterest that supports my findings in the real-world. Specifically, I found that on an aggregate level, real Pinterest products that have been described by users with identity-signaling language

(e.g., “I,” “my,” “mine”) have lower “tried it” counts (i.e., a variable on Pinterest that users are instructed to click on if they have actually tried or bought the pinned item) than products that do not include any identity-signaling language ($b = -.536$, $\chi^2 = 181.21$, $p < .0001$). As this is a site where brands typically do not incentivize posting, I believe that this provides at least some initial preliminary evidence beyond my experiments that the effect I am studying is not solely limited to prompted behavior (see Appendix W for further information on this preliminary real-world evidence).

3.8.1 Theoretical Contributions and Practical Implications

This research makes both theoretical and practical contributions. Theoretically, I add to the small but growing literature on the individual consequences of social media use (John et al. 2017; Wilcox and Stephen 2013; Zhang et al. 2017). In line with recent calls (Lamberton and Stephen 2016), I expand the types of consumer behaviors in social media considered by examining how posting about products affects the consumer who does the posting (transmitter) instead of others (receivers). I also add to the literature on identity-based consumption and identity-signaling. While prior research has focused on situations where consumers respond favorably to identity-congruent products and messages (Oyserman 2009; Reed et al. 2012), I focus on a situation where engaging with identity-relevant products backfires.

My findings have important implications for social media marketing practice. The most important is that consumers posting a brand’s or a retailer’s products on social media could, ironically, be disadvantageous for that brand or retailer. Conventional wisdom suggests that having consumers post images of one’s products on social media is beneficial because this

spreads word of mouth or generates buzz that raises awareness and, hopefully, lifts sales. Indeed, prior work has shown positive links between social media posting and outcomes such as customer acquisition and sales (Stephen and Galak 2012; Trusov, Bucklin, and Pauwels 2009). However, previous studies look at posting activity aggregated across consumers and not at how an individual's social media posting actions affects their own purchase intentions or interest in owning products that they post about. Unfortunately, my findings suggest that consumers who post identity-relevant products in a way that fulfills identity-signaling needs could decrease their likelihoods of purchase. While it might seem sensible for all brands to encourage customers to post about its products on social media to enhance awareness, this can backfire when considered at the individual level when consumers can signal identity to themselves and others.

Fortunately, my findings also have some possible suggestions for marketers to minimize this unintended consequence of engagement. Based on my findings, if consumers post products that are not identity-relevant or do not allow them to fully signal their identity to both themselves and others, there is no negative effect on purchase intentions. One suggestion may be that some brands frame their content in a way that emphasizes their products' usefulness versus solely focusing on a product's identity-signaling value. Or, to minimize the signal to the self while still getting public sharing and WOM, possibly adding external motivations for posting behavior such as a discount or reward for posting, may decrease how much of a self-signal some consumers may feel from their posts. On the other hand, brands could "steer into the skid" and heavily prime identities that are relevant to their product offerings, to encourage consumers desiring stronger signals of identity. One other suggestion could be for marketers to time their contact with consumers to when they are no longer salient. Instead of immediately responding to

consumers who interact, there may be instances where messages and products will be more positively received if interaction is done after a time delay.

3.8.2 Directions for Future Research

Future research could examine how consumers can post about non-material, experiential things like ideas, activities, and goal striving more generally. There may be situations where signaling aspirations such as weight-loss or exercise goals will influence engaging in these behaviors. There could be a positive effect if there is accountability through the social nature of these posts or there may be a negative effect that impedes goal progress.

Future research could additionally address network impacts. While I saw a decreased intention to purchase products after posting identity-relevant products on social media, possibly others may be encouraged to purchase these products, due to increased feelings of pride or liking (Bellezza and Keinan 2014). On the other hand, overly conspicuous consumption of identity-relevant products on social media could cause dilution for some target customers; discouraging purchase intentions more broadly not only at the individual, but at the aggregate level (Ferraro, Kirmani, and Matherly 2013).

There could also be negative repercussions to seeing dissimilar or disliked others also posting the same products (Berger and Heath 2008). Alternatively, there could also be negative repercussions when other post the same products as people strive to avoid too much similarity (Brewer 1991). Therefore, future work should be conducted to determine the impact of other peoples' social media-based product posts on purchase intentions.

In sum, I find that transmitters of social media content may, ironically, have lowered purchase intentions for the products and product categories they post. I demonstrate that product posts can act as a substitute for actual purchase when those posts allow the consumer to sufficiently signal identity-relevant information to other people and to the self, allowing her to coopt the identity-signaling value of the product without actual purchase. Thus, marketers' enthusiasm for generating earned-media should be tempered with caution, as the effects on consumers doing the posting may not always be positive.

APPENDIX A

INSTRUCTIONS (ESSAY 1, PILOT STUDY 1)

A.1 Description of identities (used across studies to describe identity)

An **identity** is an aspect of yourself that you find important to who you are. An identity is how you see yourself. Often, our identities have implications for the way we think and behave.

An example of an identity would be a moral identity. If you believe being moral is important to who you are as a person, then you would say you are a moral person. You might have different thoughts and behaviors than someone who does not hold that identity very strongly.

Another example of an identity is a political identity. You might see yourself as a Republican, Democrat, Independent, or member of another party. This might affect the way you think about the world and vote.

In this survey, we are exploring peoples' "food identities." These would be ways of interacting with food that, like moral identity or political identity, are part of who you are. Food identities would also help shape your attitudes and behaviors toward food.

One example of a food identity might be an "Everyone's Grandma" identity. People who see themselves as "Everyone's Grandma" might use food as a way to draw people together and might focus on home-cooked meals over fancy ingredients or highly nutritious foods. On another hand, you might also know people who would identify themselves as "Power Eaters" - they eat mostly for the energy that food gives them but are happier quickly consuming supplements or sports drinks than comfort food around a family table.

In the next couple of pages, you will be asked to think about your specific **food identity** and what comes to mind when you think of your relationship to food.

A.2 Open Response Question

You may not have thought of yourself this way in the past; please take your time and think about your identity as it relates to food.

When you are ready to begin, click below to continue.

Below please write about YOUR food identity.

Remember, an identity has implications for **how you see yourself, who you associate with, your priorities, attitudes, and behaviors.**

Below, please brainstorm different things about **how you choose and utilize food in your life.**

In short, think of your "food identity." When it comes to food, what kind of person are you?

Describe yourself in relation to how you engage with food as fully as you can.

If you'd like to tell us a story that best captures the way you use food in your life, that would be excellent. Alternately, you can describe yourself in the abstract, telling us the role that food plays in expressing yourself, in your relationships with others, in your self-concept, or in your choices.

When you are confident that you have described your food identity completely, please click to continue.

APPENDIX B

EXAMPLES OF OPEN-RESPONSE CODING FOR EACH FOOD PRIORITY (ESSAY 1, PILOT STUDY 1)

Individual Priority:

- **Example 1: I tend to be very private about my food. I don't like to be watched while eating. I also don't like people making comments or judgments about the food I choose to eat. This is why I prefer to eat alone.** Sometimes I enjoy comfort and junk foods, while other times I take effort to eat more nutritious and healthy food. My choices seem to fluctuate with my mood. I also don't mind if I eat the same thing multiple days in a row.
- **Example 2: I use food for enjoyment more than sustenance , generally speaking i enjoy to watch a good show/movie while enjoying a meal. I do not use food as a social tool ,as gathering with friends or family, I prefer to enjoy my meals in peace, free from conversation, while enjoying a show.**

Communal Priority:

- **Example 1: I use food as a way to socialize with others,** whether it is going on a date with the girlfriend or having a cook out with friends.
- **Example 2: Food for me is a way to explore and a way to show that I care about people.** I enjoy cooking meals for my husband that are balanced and filling because I think food is an important part of making a day go well. I also like cooking treats for our friends and bring them to sports events as a way to show I care and give them a treat after practicing hard. So food is definitely comforting to me.

Utilitarian Priority:

- **Example 1:** When it comes to food, I think I'm the kind of eater that only **sees and eats food as a source of fuel.**
- **Example 2:** I am **an efficient eater.** I love the taste of food and preparing it, but I make sure that I add only what's strictly necessary to my diet goals. I highly manage my macros, so that is a direct reflection of me.

Hedonic Priority:

- **Example 1:** I think my food identity would be "**delicious foods**". I don't really care much about eating healthy, or eating for energy. **I like to eat foods that taste good** whether or not they are healthy or unhealthy. I'll eat pizza, ice cream, sushi, crab, fried rice, poutine, shwarma, gyros, whatever I think tastes good at that time. When I go out to restaurants I typically read all the reviews and try to find the places that are the **most delicious or indulging.** We only have one life, why waste it eating cardboard tasting crap?
- **Example 2:** I am a comfort food eater. **I love to enjoy and savor my food.** I eat slowly, and don't pay attention to calories, I just want to enjoy how the food tastes.

Health/Restriction Priority:

- **Example 1:** My food identity is a **constant struggle to determine what's healthy,** both for myself and for the planet. The dietary habits I maintain become part of my identity. / I've cycled through vegetarianism and eating a lot of meat. I dabbled for a time in pescatarianism (eating fish, eggs, and dairy, but no other meats), raw foodism (consuming only raw fruits, vegetables, and legumes), and hardcore locavorism (buying only food grown within a 3-5 hour driving distance), among other diets.
- **Example 2:** Over the past two years I have **lost 75 lbs and am keeping the weight off.** I would describe my food identity as **careful tracker.** I track daily everything that goes in my mouth. **I eat healthy** and make sure I get the proper amount of vegetables, fruits, dairy and limit my carbs. I also eat a lot of lean proteins to keep me satisfied during the day.

APPENDIX C

TERMS TEST (ESSAY 1, PILOT STUDY 2)

People were asked about how different words described them using the food identity prompt used across studies (i.e., how well do these terms describe you and how you prioritize and use food for self-expression). All of these words and phrases were taken from the open-responses in Pilot Study 1 and were self-labeling terms used by individuals when discussing their food identities organically without prompting to focus on these different dimensions.

Possible Individual-Communal Words	Possible Utilitarian-Hedonic Words
<ul style="list-style-type: none"> • Pragmatic • Practical • Self-focused • Independent • Individual • Private • Personal • Loner • Social • Friendly • Care-taker • Communal • Family Oriented • Bringing people together • Sharer • Host/Hostess 	<ul style="list-style-type: none"> • Utilitarian • Functional • Eat to survive/sustain • Food as fuel • Food as a means to an end • Food for power • Food to strengthen • Food for necessity • Focused on senses • Delicious • Indulgence • Connoisseur • Food Lover • Comfort Eater • Gratification • Recreation • Food appreciator • Food for pleasure • Taste focused • Hedonist

APPENDIX D

ITEMS TO MEASURE IDENTITY CENTRALITY, IMPORTANCE, AND STRENGTH

(ESSAY 1, PILOT STUDY 2)

Considering how you use food to express yourself, please answer the following questions about your personal food identity.

1. How strongly do you hold this food identity? 1 (Not at all) – 7 (Very Strongly)

2. Different parts of peoples' identity may be more or less important to them. Identities that are more important play a larger role in determining peoples' choices, attitudes and social behaviors.

How important is your food identity to you? 1 (Not at all important) – 7 (Extremely Important)

3. Different parts of peoples' identity may be more or less central to them. Identities that are more central play a larger role in determining peoples' choices, attitudes and social behaviors.

How central is your food identity to you? 1 (Not at all central) – 7 (Very Central)

4. How stable, over time, would you say this food identity has been for you?

1 (Not at all stable- it has changed frequently) – 7 (Very Stable- it's been similar for a long time)

5. How different would you say your food identity (i.e., how you use food to express who you are) is to your food goals (i.e., how you use food to achieve goals like weight loss)?

1 (Not at all different) – 7 (Very different)

APPENDIX E

CREATION OF FOOD IDENTITY CONGRUENCY VARIABLES ACROSS STUDIES

(ESSAY 1)

PFMatch = (Private>4 and Social<4 and Fuel>4 and Pleasure<4) = 1.

PPMatch = (Private>4 and Social<4 and Fuel<4 and Pleasure>4) = 1.

SFMatch = (Private<4 and Social>4 and Fuel>4 and Pleasure<4) = 1.

SPMatch = (Private<4 and Social>4 and Fuel<4 and Pleasure>4) = 1.

Across studies after Pilot Study 1, I created identity-congruency variables. One version of this variable was a simple 1 or 0 classification into a food identity considering the scores people had across consumption priorities (i.e., across the individual-communal and utilitarian-hedonic dimensions). This would have people classified as holding one of the four food identity possibilities (i.e., private-fuel, private-pleasure, social-fuel, and social-pleasure) or being classified as having no clear food identity from these options. This was used in Pilot Study 2, Study 1A, Study 1B, and Study 2 to classify identity-congruency.

In Studies 3 and 4 then, if participants were randomly assigned to view stimuli that was within the same food identity as they were (as determined by their congruency match), they were considered to be in an identity-congruent condition. If they viewed stimuli that was not comprised of the same consumption priorities, they were in an identity-incongruent condition. For anyone who was “unmatched” with an identity considering these consumption priority scores (e.g., scoring 4’s across private and social priorities, or having scores that would have them included in multiple conflicting identities such as having high scores that would place them as both private-fuel and social-pleasure), they were considered to be in an identity-incongruent condition.

APPENDIX F

FOOD IDENTITY MEASUREMENT (ESSAY 1)

We are interested in your relationship with food, and specifically how you see food as helping you express yourself.

Below is a list of terms that may be used to describe a person specifically in regard to **how they use food to express themselves, and priorities they hold regarding food.**

Please rate each term, based on how well it describes who YOU are in regard to consumption priorities you have.

1 (Strong Disagree) – 7 (Strongly Agree)

Private

Social

Food as Fuel

Food for Pleasure

APPENDIX G

COMPARISON MEASURES WITH MODIFIED ITEMS (ESSAY 1, STUDY 1A)

Modified Self-control:

Strongly Disagree (1) Strongly Agree (7)

- I closely monitor my eating behavior
- I am able to work effectively towards long-term health goals
- I carefully consider my needs before making food decisions
- I often delay taking action until I have carefully considered the consequences of my food decisions
- When I go out with my friends, I keep track of what I am eating
- I am able to resist temptation in order to achieve my health goals
- I know when to "say when" regarding how much I eat
- In social situations, I am generally aware of what I am eating
- Having objectives related to eating is important to me
- I am responsible when it comes to how much I eat

Opinion Leaders and Opinion Seekers Modified for Food Domain:

Strongly Disagree (1) Strongly Agree (7)

- I often persuade others to buy the food that I like
- I often influence people's opinions about food
- When I consider buying a certain food product, I ask other people for advice
- I don't like to talk to others before I buy food
- I rarely ask other people what food to buy
- I like to get others' opinions before I buy food
- I feel more comfortable buying a food product when I have gotten other people's opinions on it
- When choosing food, other people's opinions are not important to me

APPENDIX H

FOOD IDENTITY-CONGRUENT STIMULI (ESSAY 1, STUDY 2)

Private-Fuel Restaurant: A restaurant whose slogan is "Eat Fresh".



Social-Fuel Restaurant: A restaurant whose slogan is "When you're here, you're family".



Social-Pleasure Restaurant: A restaurant whose slogan is "Come hungry. Leave Happy".



Private-Pleasure: A restaurant whose slogan is "Where the Food's the Star".



APPENDIX I

STUDY PRIME AND INSTRUCTIONS (ESSAY 1, STUDY 3)

I.1 Identity Primes

Food Identity Prime (Modified to be Like Moral Identity Prime; Aquino and Reed 2002):

Listed below are some characteristics that may describe how different people approach food. The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has some of these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, write below who this person would be, how they would behave, what their priorities are, and the types of decisions they would make based on which words below you think describes them.

Independent, Private
Social, Community-Focused
Eats food as a means to an end, Uses food as fuel
Eats food for pleasure, Focused on gratification from food

Moral Identity Prime (taken directly from Aquino and Reed 2002):

Listed below are some characteristics that may describe a person. The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, write below who this person would be, how they would behave, what their priorities are, and the types of decisions they would make.

Caring, Compassionate, Fair, Friendly, Generous, Hardworking, Helpful, Honest, Kind

I.2 Target Information

Target wants to be the place shoppers regularly scoop up their groceries. However, Target has struggled to get shoppers to pick up groceries frequently enough for the business to make sense. To try and fix this issue, Target is attempting to change up its advertisements to attract new customers.

Below, there is a new advertisement that Target is considering using to attract customers to their grocery department. Please evaluate the advertisement as we will ask a number of questions on the following pages about the below ad.

APPENDIX J

FOOD IDENTITY-CONGRUENT STIMULI (ESSAY 1, STUDY 3)

Private, Fuel



The best assortment for you and your friends to share when you all need an energy boost

Your Target has grocery and other surprises.



Private, Pleasure



The best assortment for any private indulgence

Your Target has grocery and other surprises.



Social, Fuel



The best assortment for your own personal energy boost

Your Target has grocery and other surprises.



Social, Pleasure



The best assortment for you and your friends to share when you all need an indulgent treat

Your Target has grocery and other surprises.



APPENDIX K

FOOD IDENTITY-CONGRUENT STIMULI (ESSAY 1, STUDY 4)

All Popcorn Messages Included:

Today while you watch a movie clip from a documentary focusing on the differences between nature and nurture you will be able to enjoy a snack.

This popcorn contains no allergens except sunflower oil. Please do not eat it if you are allergic to sunflower oil

Specific Popcorn Messages:

Private-Fuel

The popcorn in front of you is the perfect snack for your own personal energy boost.

Private-Pleasure

The popcorn in front of you is the perfect snack for any private indulgence.

Social-Fuel

The popcorn in front of you is the perfect snack to share with friends when you all need an energy boost.

Social-Pleasure

The popcorn in front of you is the perfect snack to enjoy when you and your friends all need an indulgent treat.

APPENDIX L

INSTRUCTIONS (ESSAY 1, STUDY 4)

This information was seen before and after receiving the bag of popcorn.

L. 1 Popcorn Instructions

As this is a study about the experience of viewing shows and movies, to make the whole experience more realistic, we would like to offer you a snack to enjoy eating while watching the film clip.

Please raise your hand to get a bag of popcorn before progressing to the next screen that includes a little information about the snack and the video.

If you are not interested in having any of the snack, please still raise your hand for a bag, but don't feel obligated to eat any of it. You will have the duration of the clip to enjoy as much or as little popcorn as you would like.

Please record the number on your popcorn bag (the number is located on the front of the bag on the blue sticker) in the space below.

Do not proceed until you have recorded this number.

L.2 Movie Instructions (Cover Story)

Now that you are comfortable with your movie snack, you'll get to start your video. Now is when you must use your headphones.

Please press start to watch this documentary clip. The documentary will play in the survey window. Do not try to skip ahead until the video has been completed. The page will not allow you to advance until the end of the video.

Remember, we are interested in your experiences and opinions regarding this movie-going experience so sit back, relax, and enjoy some popcorn while you watch.

APPENDIX M

EUCLIDEAN DISTANCE AS AN IDENTITY-STRENGTH MEASUREMENT (ESSAY 1, STUDY 4)

Food identities are defined in this paper as a self-conception organized around a set of consumption priorities. As I cannot, and do not need to be exhaustive when considering priorities related to food identities, I consider two possible priorities in this research to invoke and define food identities: peoples' individual or communal consumption priorities, and utilitarian or hedonic priorities.

When I calculate identity-strength in Study 4, I calculate the Euclidean distance equation across both priorities. The overall scores people have across the individual/communal consumption priorities and their utilitarian/hedonic priorities determine the first point of distance while the point these scores are compared to are the exact points of the condition-specific stimuli. Using this type of measure shows the degree of closeness between person's identity score in the quadrant of interest to the exact point of stimuli which I define as identity-strength as a smaller-distance shows higher similarity (i.e., higher identity-strength), while a larger distance shows lower similarity (i.e., lower identity-strength).

$$\text{Euclidean distance measure: } d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Pre-tested spots for food identity stimuli that was used to calculate Euclidean distance:

PF: (6.30,6.10)

PP: (6.30, 6.00)

SF: (6.29, 6.10)

SP: (6.29, 6.00)

APPENDIX N

ALTERNATIVE EXPLANATION WRITE UP (ESSAY 1, STUDY 4)

In this study, I considered a few alternative explanations for why and how much participants chose to eat popcorn. These include how much people enjoyed their popcorn, thought it was high quality, and if they thought it was tasty. I also included items about the movie going experience, to see if something like their ability to hear the video influenced their consumption. To test this, I regressed the amount of popcorn consumed with all of these additional variables added with to identity-congruence of the popcorn messages, Euclidean distance, their interaction, mean-centered modified dieting self-control, participants' level of hunger, participants' mood, restricted eating, age, and gender. I found that the only variables that predicted the amount of popcorn consumed were the interaction between identity-congruence and Euclidean distance ($\beta = .08, t = 2.11, p = .037$) and age ($\beta = -.03, t = -1.64, p = .004$). Nothing else was significant (all $p > .10$).

I additionally considered whether or not there would be something about identity-congruent food that would influence a participants' perceptions of it. I regressed how tasty the popcorn was seen as being, how much they enjoyed the popcorn, and how high quality the popcorn was seen as being in three separate regressions by identity-congruence of the popcorn messages, Euclidean distance, their interaction, mean-centered modified dieting self-control, participants' level of hunger, participants' mood, restricted eating, age, and gender. I found that nothing was significant in any of the three models at predicting these feelings (all $p > .10$). I found that enjoyment of the popcorn was marginally predicted by the interaction between identity-congruence and Euclidean distance ($\beta = -.32, t = -1.75, p = .083$). Looking at the simple effects of Euclidean distance across identity-congruency, I found that enjoyment of the popcorn was not significantly predicted by Euclidean distance (i.e., identity-strength) when participants saw identity-incongruent information ($\beta = .07, t = .56, p = .580$). However, when participants ate identity-congruent popcorn, the enjoyment of the popcorn was moderately lower for those who had lower identity-strength compared to those who had higher identity-strength ($\beta = -.24, t = -1.90, p = .062$). This result provides some additional support to the idea that people prefer identity-congruent products and that identity-strength is a relevant moderator. However, these findings do not provide evidence to an alternative explanation that perceived quality, taste, or enjoyment explained the amount of popcorn people consumed.

APPENDIX O

FACEBOOK CURATION INSTRUCTIONS ACROSS STUDIES (ESSAY 2)

O. 1 Facebook Curation Instructions

Participants read about a new Facebook feature called “Facebook Curations.” These instructions were used in Studies 1, 3, and 4a. All participants, regardless of condition, read the below text to learn about the Facebook Curations Feature:

“Facebook has recently started developing a new feature for its site that is similar to Pinterest in that it allows people to store visual content on their Facebook pages.

Facebook's newest feature is called **Facebook Curations**. Founded in 2004, Facebook's mission is to give people the power to share and make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them. Therefore, their newest venture is a feature that allows users to access and interact with the world's information through pictures and boards. It makes information universally accessible in a format everyone can connect with.

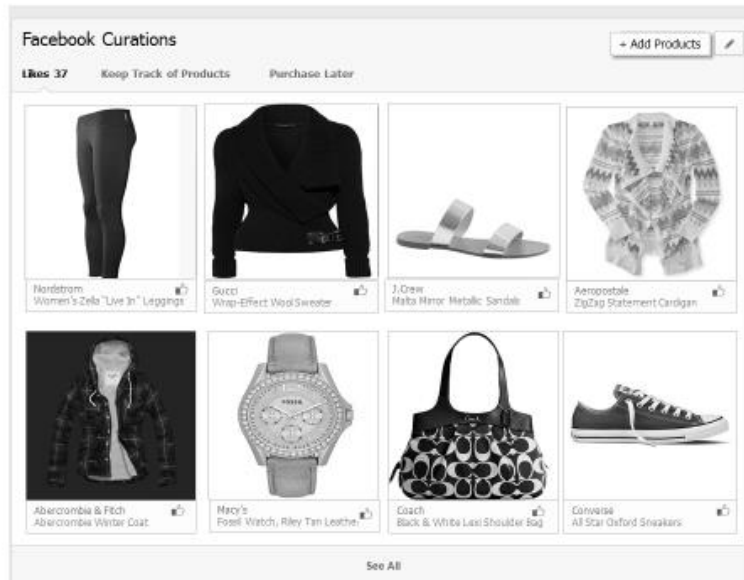
The way Facebook currently displays information is on a person's timeline. On the side of a person's timeline is a number of permanent features that more visually represents information about the individual (such as favorite music, books, and television shows).

With the new Facebook Curations feature, people will be able to store content about products in a visual manner that won't disappear as more content is added to your timeline. Unlike status updates, this is a permanent feature that can be accessed at any time by looking to the right-hand side of your timeline.

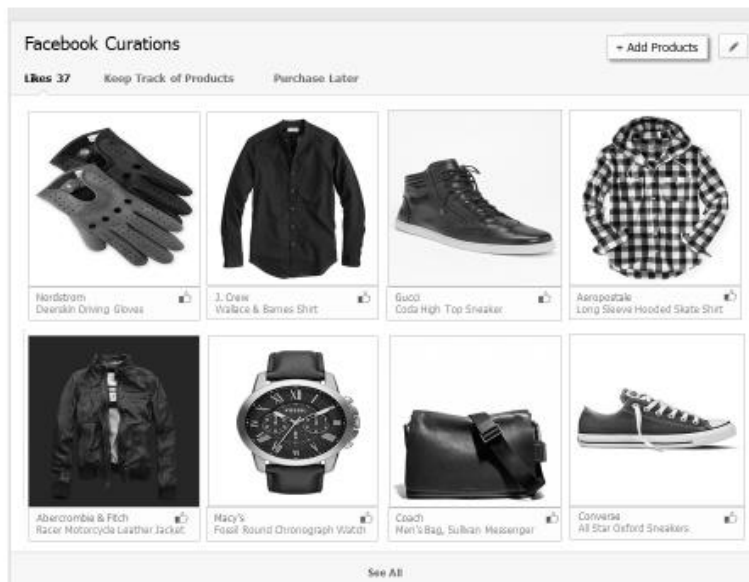
This feature is a new way that Facebook will allow its users to choose and showcase their product choices and preferences to themselves and others.

Below is an example of how this feature will appear on your timeline. As you can see, this is a way to visually represent product information on your Facebook timeline in a way that is visual to all of the people in your social network to see.”

Facebook Curation Example Shown to Women:



Facebook Curation Example Shown to Men:



O. 2 Studies 1, 3, 4a Identity-relevant Posting Instructions

Now we would like to ask you to continue with this task as though you are going to interact with the new Facebook Curations feature on YOUR Facebook.

Please look up **three products** online that represent your **Pitt Student Identity**. These are **products** that you would use to show that you are a proud Pitt student.

For each product you believe showcases your Pitt Student Identity, copy the product url, paste it into one of the lines below, and write the name of the product on the following line. You will be doing this for **three different products** that are all representative of your Pitt Student Identity.

To copy a url from a photo of a product, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.

Then on the second line, write what the product is (e.g., a Pitt sweatshirt).

Do not go off-task while searching online. You will not be able to move forward in the survey for the next few minutes. After a couple minutes have passed, and you have submitted url codes that are verified as true urls, then you will be able to move on to the next survey.

O.3 Studies 3 and 4a Functional Posting Instructions

Now we would like to ask you to continue with this task as though you are going to interact with the new Facebook Curations feature on YOUR Facebook.

Please look up **three products** online that are helpful to you as a **college student**. These are **products** that you would use to do daily tasks that are necessary for a student.

For each product you believe is helpful in your daily life as a student, copy the product url, paste it into one of the lines below, and write the name of the product on the following line. You will be doing this for **three different products** that are all useful to you as a college student.


To copy a url from a photo of a product, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.



Then on the second line, write what the product is (e.g., a sweatshirt).

Do not go off-task while searching online. You will not be able to move forward in the survey for the next few minutes. After a couple minutes have passed, and you have submitted url codes that are verified as true urls, then you will be able to move on to the next survey.

APPENDIX P

DEPENDENT VARIABLES ACROSS STUDIES (ESSAY 2)

Study	Dependent Variable(s)	Identity-Relevant Product(s)	Functional Product(s)
Study 1, 4a	Purchase Intentions		
Study 2	Purchase Intentions	 <p data-bbox="542 1346 959 1377">North Face Eco-Life Backpack (\$64)</p> <p data-bbox="542 1402 980 1562">Made from 100% organic fibers. Utilitarian design minimizes waste in the construction process. Comes with instructions on how to recycle the backpack when you are done with it</p>	
Study 3	Real WTP		
Study 4b	Purchase Intentions	Three items chosen by participants as representative of actual self or ideal self	

<p>Study 5</p>	<p>Real Choice</p>	<p>North Face Eco-Life Backpack</p> <p>Made from 100% organic fibers</p> <p>Utilitarian design minimizes waste in the construction process. Comes with instructions on how to recycle the backpack when you are done with it</p>  <p>Matt and Nat Vintage Backpack</p> <p>Bag lining made from 100% recycled plastic bottled. Various vegan leathers and sustainable materials are included in designs. The head office is a "cruelty-free" zone</p>	<p>Victoriatourist DSLR Camera Backpack</p> <p>Comes with rain cover kept in bottom zipper pouch. Cushioned DSLR compartment provides maximum camera protection. Airflow back system keeps your back and shoulders comfortable with soft padding</p>  <p>BAGSMART Camera Backpack</p> <p>Includes a rain cover in the case of unexpected weather. Interior can be divided into two levels: one for clothing and one for DSLRs with 3-4 lenses. Ample padded compartments to hold laptops and notebooks</p>
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APPENDIX Q

REAL SOCIAL MEDIA REPLICATION (ESSAY 2, DISCUSSION OF STUDY 1)

Q.1. Replication Study Manipulation Check

Using seven-point Likert Scales (1 = “strongly disagree” to 7 = “strongly agree”), participants who were in the posting condition were significantly more likely to have pinned items to their social media accounts ($M = 6.75$, $SD = .96$) than those who were supposed to only post the URLs into the survey form ($M = 1.83$, $SD = 1.78$; $\beta = 4.92$, $t = 19.67$, $p < .001$) showing that people followed instructions.

Q. 2 Replication Study Feelings Regarding Dependent Variable

After viewing the North Face bag (from the pre-test), participants were also asked how much they liked the bag, how eco-friendly it was, if they already owned the bag (or something very similar), and if environmentalists would signal their identity using this bag (1 = “strongly disagree” to 7 = “strongly agree”). Across the two conditions there were no significant differences on any of these measures (all $p > .67$). Compared to the midpoint, t-tests showed that people did not already own the bag (or something similar), and the evaluated bag was rated as significantly liked, eco-friendly, and something environmentalists would own to signal identity (all $p < .001$).

Q.3 Replication Study Task Instructions

Q.3.1 Pre-Product Instructions (Everyone Saw):

In today's task, you will be engaging with content on Pinterest and posting urls of this content on the following pages.

On Pinterest there are a couple of different ways that individuals can engage with content.

The first way is through "pinning". When people choose to pin products or pages on Pinterest, they are then able to categorize where they want these pins to appear. For example, if someone pins a suitcase, they can place it under their "Travel" board, or they could place it under a "Jet-set

Style Board". These boards can be specialized and have different messages and themes depending on the way the person wants this suitcase to be incorporated into their online-self. Either way, pinning items allows a person to curate content in a way that is representative of some aspect of their identity.

The second way is through "liking". When people choose to like products or pages on Pinterest, they are NOT able to categorize where they want these pins to appear. For example, if someone likes a suitcase, with liking, the suitcase is just saved to one place where all liked content is saved without categorization or separation. Liking items allows a person to save content to go back to later without the content being affiliated with them in a more meaningful way.

On the next page you will see instructions for the type of content we would like you to interact with and how we would like you to interact with this content in the survey and on Pinterest.

Q.3.2 Posting [No Posting] Instructions:

In this task, please look up five products under the category of clothing or clothing accessories (i.e. anything from shoes to jackets to watches) that represent your IDEAL self. These are products that really showcase who you want to be, describes an idealized self that you hope to pursue, represents what you hope to own or wish you could have, and overall represents the kind of person you aspire to be.

For each product you believe represents your IDEAL self, pin the product to a board, copy the product url, and paste it into the section on the next page along with the description of the product **[do NOT "pin" or "like" any of these items on Pinterest. ONLY copy the product page's url into the survey form and write a short product description on the next page].** You will be doing this for five different products that are all representative of your ideal self.

As you will be finding these products by browsing Pinterest, please "pin" these five items on Pinterest to a board you already have created or one you will create that represents your ideal self **[please do not pin or like these items to a board on Pinterest].**

Please only choose products that follow under the clothing and clothing accessory categories. Do not post urls for pictures of quotes or other non-material objects. Each product should add to your image of who your true ideal self is when you think about your life as you hope for it to be.

Remember, all of the products must be different from one another, and must be representative of your IDEAL self.

Q. 4 Replication Study Methodology and Results

The replication of Study 1 shows that consumers' social media actions can negatively influence their purchase intentions when they post identity-relevant products. Focusing on peoples' ideal self-concept as my focal identity, I compare purchase intentions for an aspirational product after consumers have either posted ideal self-products on social media or have merely found (but not posted) ideal self-products on social media.

Method

One hundred and thirty-five members of Amazon Mechanical Turk who declared themselves to be active Pinterest users participated for a nominal payment ($M_{\text{age}} = 32.16$ years, 70% women). No participants were dropped. Participants were randomly assigned to one condition in a 2-cell design (social media action: posting, no posting) and completed a task in which they had to find identity-relevant products on Pinterest. The conditions differed based on whether or not participants then had to post these products in social media.

The study had two seemingly unrelated parts. In part 1, participants used their real personal Pinterest accounts to find products. To help conceal the study's purpose, participants were first asked some general questions about their Pinterest use such as the length of time they've been a user and their frequency of using the site. Participants were then told to find five products on Pinterest. These five products were to be clothing or clothing accessories (i.e., an identity-signaling domain; Berger and Heath 2007; Shavitt and Nelson 1999) that represented their ideal self-concept. The language used to describe an ideal self (i.e., who they want or aspire to be) was taken from a previously used definition (Shah, Higgins, and Friedman 1998). All participants entered their products into an online survey by providing URLs to the products they found. This was all that was instructed in the control condition. In the posting condition, participants were also instructed to pin these items to a real Pinterest board on their personal Pinterest account where that board was representative of their ideal self-concept.

After this, in a seemingly unrelated study, participants indicated their purchase intentions for an eco-friendly North Face backpack on a Likert scale (1 = "strongly disagree" to 7 = "strongly agree"). This product was chosen as our identity-relevant product for a number of reasons. The first is that eco-friendly products, generally, have been found to be aspirational and carry positive status (Ward and Dahl 2014). Additionally, this specific bag was rated as being liked, identity-relevant for the ideal self (i.e., aspirational), and eco-friendly in a pre-test ($N = 280$). Finally, participants answered standard demographic questions and completed manipulation check items.

Results and Discussion

I predicted that purchase intentions for the aspirational bag would be lower for those who posted ideal self-products compared to those who did not post ideal self-products. To test this, I regressed purchase intentions on the action (control = -1, posting = 1). The main effect of posting was significant ($\beta = -.354$, $t = -2.50$, $p = .014$). As predicted, purchase intentions for the aspirational bag were lower when participants posted ideal self-products on social media ($M = 3.95$, $SD = 1.95$) compared to when they found, but did not post, these aspirational products on social media (i.e., control condition; $M = 4.66$, $SD = 1.31$). The results of this study provide additional evidence to Study 1. Here I show that consumers have less interest in purchasing identity-relevant products after they have had the opportunity to actually post identity-relevant products on social media (compared to finding, but not posting products).

APPENDIX R

INSTRUCTIONS FOR PINTEREST PRODUCT TASK (ESSAY 2, STUDY 2)

Below are the instructions for the different tasks participants were randomly assigned to complete in the 2 (posting: identity-relevant, functional) x 2 (visibility of post: public, private) between-subjects design. These same instructions for public and private Pinterest boards, along with the identity-signaling product posting task were utilized in Study 5, Time 1.

R.1 Visibility Condition Instructions

Private Visibility:

Now we would like to ask you to continue with this task by actively interacting with YOUR Pinterest account.

In this task, you need to create a Pinterest board that is **Private**. To do this, Pinterest has a feature called "**Secret Boards**". These are boards that are private, and thus are only seen by you. **No one else will see what you post to this board.**

On the next page, we will provide further information about the type of Pinterest board you will create.

Public Visibility:

Now we would like to ask you to continue with this task by actively interacting with YOUR Pinterest account.

In this task, you need to create a Pinterest board that is **Public**. To do this, go to your Pinterest homepage and create a board. This board you create will be visible to people in your social network. **Everyone else will be able see what you post to this board.**

On the next page, we will provide further information about the type of Pinterest board you will create.

R.2 Posting Condition Instructions

Functional Posting Instructions:

Now we would like to ask you to continue with this task by creating a Pinterest board.

Please look up **three products** on Pinterest to post to a board that shows products people can use to help the environment. These are products that you would use to do daily tasks that are good for the environment.

For each product you believe is environmentally friendly, copy the product url, paste it into one of the lines below, and write the name of the product on the following line (in addition to posting these items on Pinterest). You will be doing this for **three different products** that are all environmentally friendly.

To copy a url from a Pinterest pin, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.

Then on the second line, write what the product is (e.g., an eco-friendly sponge).

Do not go off-task while searching online.

You will not be able to move forward in the survey for the next few minutes. After a couple minutes have passed, and you have submitted url codes that are verified as true urls, then you will be able to move on to the next survey.

Identity-relevant Posting Instructions:

Now we would like to ask you to continue with this task by creating a Pinterest board.

Please look up **three products** on Pinterest to post to a board that represent an **Environmental Identity**. These are **products** that you would use to show that you are a proud Environmentalist.

For each product you believe you would use to showcase an Environmentalist Identity, copy the product url, paste it into one of the lines below, and write the name of the product on the following line. You will be doing this for **three different products** that are all representative of your Environmentalist Identity.

To copy a url from a photo of a product, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.

Then on the second line, write what the product is (e.g., a Tesla which is an eco-friendly car).

Do not go off-task while searching online.

You will not be able to move forward in the survey for the next few minutes. After a couple minutes have passed, and you have submitted url codes that are verified as true urls, then you will be able to move on to the next survey.

APPENDIX S

IDENTITY-STRENGTH PRIME (ESSAY 2, STUDY 3)

Control Condition:

Below, write about your favorite type of tree. What type of leaves, how tall it is, why it is your favorite. Any details you can think about in conjunction with trees should be written.

Please spend at least one-minute writing. The screen will not let you move forward for at least one minute.

High Strength Condition:

Below, write about how being a student at the University of Pittsburgh is an important part of who you are. Please explain how being a University of Pittsburgh student shapes your daily life, how it influences who you will be in the future, and how it influences your relationships.

Please spend at least one-minute writing. The screen will not let you move forward for at least one minute.

APPENDIX T

IDENTITY-SIGNALING MEASURES (ESSAY 2, STUDIES 3, 4A, 5)

T. 1 Identity-signaling to Others

(1 = not at all to 7 = a great deal)

1. When people see you, do they see you as a Pitt student?
2. To what extent do you think people see you as a Pitt student?

T. 2 Self-Identity Measure

(1 = Strongly Disagree to 7 = Strongly Agree)

1. The products I would post to the Facebook reflect my identity
2. Having the products posted to my Facebook would reflect who I am
3. Having the products posted to my Facebook would express the personality that I want to communicate to others
4. Having the products posted to my Facebook would reflect the way I want to present myself to others
5. Having the products I chose to post to Facebook suits me well

The wording of these items was changed for the Pinterest task in Study 5 to reflect the correct social media platform and representing an environmentalist (vs. student) identity

APPENDIX U

TASK INSTRUCTIONS (ESSAY 2, STUDY 4B)

Below are the text instructions participants saw for finding products that related to their ideal self-concept, actual self-concept, or control condition.

U. 1 Creating Initial Sets

Participants saw and did all three of the below tasks in a random order.

U.1.1 Actual-Self Condition:

Please look up **three products under the category of clothing or clothing accessories** (i.e. anything from shoes to jackets to bags to watches) that represent your **ACTUAL self**. These are **products** that really embody **who you are currently**, describes products similar to those you currently own, or represents the kind of person you believe **you are right now**.

For each product you believe represents your ACTUAL self, copy the product url, paste it into one of the lines below, and write the name of the product on the following line. You will be doing this for **three different products** that are all representative of your actual self.

To copy a url from a photo of a product, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.

The name of the product will be provided either above or below the picture of the product.

Please **do not go off-task while searching clothing/ clothing accessory pictures on Pinterest**.

While you will be finding these products by browsing Pinterest, remember, **do NOT "pin" or "like" any of these items on Pinterest. ONLY copy the product page's url into the survey form below.**

U.1.2 Ideal-Self Condition:

Please look up **three products under the category of clothing or clothing accessories** (i.e. anything from shoes to jackets to bags to watches) that represent your **IDEAL self**. These are **products** that really **showcase who you want to be**, describes an idealized self that you **hope to pursue**, represents what you hope to own or wish you could have, and overall represents the kind of person **you aspire to be**.

For each product you believe represents your IDEAL self, copy the product url, paste it into one of the lines below, and write the name of the product on the following line. You will be doing this for **three different products** that are all representative of your ideal self.

To copy a url from a photo of a product, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.

The name of the product will be provided either above or below the picture of the product.

Please **do not go off-task while searching clothing/ clothing accessory pictures on Pinterest**.

While you will be finding these products by browsing Pinterest, remember, **do NOT "pin" or "like" any of these items on Pinterest. ONLY copy the product page's url into the survey form below.**

U.1.3 Control Condition:

Please look up **three products under the category of clothing or clothing accessories** (i.e. anything from shoes to jackets to bags to watches) that you believe are functional and nice but that do not represent any specific identity of yours. These are **products** that you would not necessarily use to represent yourself to others but that you would like or find useful. These should be products you like or that could be useful.

For each product you think does not represent an identity of yours, copy the product url, paste it into one of the lines below, and write the name of the product on the following line. You will be doing this for **three different products** that are all not representative of any self or identity you may hold.

To copy a url from a photo of a product, first right click on the image. Then, from the drop-down menu of options you will have, click on "Copy Image URL or link address". Then paste that exact code into the text spaces below.

The name of the product will be provided either above or below the picture of the product.

Please **do not go off-task while searching clothing/ clothing accessory pictures on Pinterest**.

While you will be finding these products by browsing Pinterest, remember, **do NOT "pin" or "like" any of these items on Pinterest. ONLY copy the product page's url into the survey form below.**

U. 2 Posting Task Conditions

Participants randomly were assigned to see one of the below conditions.

U.2.1 Actual Self-Posting:

Now we would like to ask you to continue with this task by actively interacting with YOUR Pinterest account.

Please create or use a Pinterest board you have that describes your **ACTUAL** self, using products and brands. This would be a board that showcases **products** that really embody **who you are currently**, describes products similar to those you currently own, or represents the kind of person you believe **you are right now**.

For this task, you need to pin the three products you previously found that related to your actual-self to this board (either newly created or already existing). The urls for these products are listed below so that you can easily re-find and pin these items.

`#{q://QID58/ChoiceTextEntryValue/1}`
`#{q://QID88/ChoiceTextEntryValue/1}`
`#{q://QID89/ChoiceTextEntryValue/1}`

For this task it is important that you pin these items to a board and not just "like" these products. Below, briefly describe how the products you chose to pin are representative of your actual self. How would these products show others who you are as a person right now?

`#{q://QID58/ChoiceTextEntryValue/2}`
`#{q://QID88/ChoiceTextEntryValue/2}`
`#{q://QID89/ChoiceTextEntryValue/2}`

U.2.2 Ideal Self-Posting:

Now we would like to ask you to continue with this task by actively interacting with YOUR Pinterest account.

Please create or use a Pinterest board you have that describes your **IDEAL** self, using products and brands. This would be a board that showcases **products** that really embody **who you are currently**, describes **products** that really **showcase who you want to be**, describes an idealized self that you **hope to pursue**, represents what you hope to own or wish you could have, and overall represents the kind of person **you aspire to be**.

For this task, you need to pin the three products you previously found that related to your ideal-self to this board (either newly created or already existing). The urls for these products are listed below so that you can easily re-find and pin these items.

`#{q://QID90/ChoiceTextEntryValue/1}`
`#{q://QID91/ChoiceTextEntryValue/1}`
`#{q://QID92/ChoiceTextEntryValue/1}`

For this task it is important that you pin these items to a board and not just "like" these products. Below, briefly describe how the products you chose to pin are representative of your ideal self. How would these products show others who you aspire to be?

`#{q://QID90/ChoiceTextEntryValue/2}`
`#{q://QID91/ChoiceTextEntryValue/2}`
`#{q://QID92/ChoiceTextEntryValue/2}`

Now we would like to ask you to continue with this task by actively interacting with YOUR Pinterest account.

U.2.3 Control Posting:

Please create or use a Pinterest board you have that does not describe your identity. This would be a board that showcases **products** that you would not use to represent yourself to others but that possibly would be used by other people to showcase to others aspects of who they are or who they wish to be. These can be products you like, however, they should not be something you would use to showcase who you are.

For this task, you need to pin the three products you previously found that related to this non - identity-representative prompt to this board (either newly created or already existing). The urls for these products are listed below so that you can easily re-find and pin these items.

`#{q://QID93/ChoiceTextEntryValue/1}`
`#{q://QID94/ChoiceTextEntryValue/1}`
`#{q://QID95/ChoiceTextEntryValue/1}`

For this task it is important that you pin these items to a board and not just "like" these products. Below, briefly describe how the products you chose to pin are NOT representative of your identity. How come these products do not show others something about your identity?

`#{q://QID93/ChoiceTextEntryValue/2}`
`#{q://QID94/ChoiceTextEntryValue/2}`
`#{q://QID95/ChoiceTextEntryValue/2}`

APPENDIX V

INSTRUCTIONS (ESSAY 2, STUDY 5)

The instructions for posting products was the same as Study 2 (public vs. private visibility of environmentalist identity). The mediators measured were same as in previous studies.

V.1 Time 1 and Time 2 Choice Task

Everyone who completes this survey will be entered into a lottery to receive one of the bags if they are chosen. If you were to win, which of the below bags would you want to receive?

- North Face Eco-Life Backpack
- BAGSMART Camera Backpack
- Matt and Nat Vintage Backpack
- Victoriatourist DSLR Camera Backpack

V.2 Time 2 Salience Conditions

High Salience:

Now we would like to ask you to continue with this task by looking at the Pinterest board you created last week.

Please look at the **three products** on Pinterest that you posted to a board that represents your **Environmental Identity**. These are **products** that you decided you would use to show that you are a proud Environmentalist.

Below, think about the products you remember choosing and briefly describe how each of the products you chose to display signals your Environmentalist identity.

Low Salience:

There was no reminder of the social media-based product posting task from the prior week.

APPENDIX W

PRELIMINARY REAL-WORLD EVIDENCE OF EFFECT (ESSAY 2)

The purpose of this real-world data exploration is to provide preliminary evidence that my central prediction—that identity-signaling needs can be met through product posting on social media, negatively impacting purchase and consumption—can occur outside of prompted encounters. I examine correlational consumer behavior at the aggregate level using real-world Pinterest data for brands and products that have been self-chosen by Pinterest users to be shared on their social media accounts.

For this, I collected data from Pinterest, a popular social media platform that allows its users to interact with and save (“pin”) products on their profiles through “boards.” Interestingly, Pinterest highlights how over 75% of its content is generated by businesses and that it is a platform that “inspires people to act” (Pinterest 2017). Importantly, for my purposes, for “pinned” products on Pinterest, the platform indicates if any of its users have indicated “trying” the pin (specifically, for each product, there is the count of people who “tried it” which encompasses trying something, like a recipe, or buying something, like a sweater).

I collected data on approximately 50,000 pins for products that were in the women’s or men’s style categories. These categories were chosen as clothing is a relevant product category for identity-signaling (Berger and Heath 2007), and most of the pins within these given categories are actual products (vs. other categories on Pinterest that are not as product focused).

As my hypothesis is that posting identity-relevant products allows consumers to fulfill their identity-signaling needs, I believe that a proxy for whether or not products were used for identity-signaling is the language that surrounds the product post. Specifically, according to my hypothesis, products described using more identity-relevant language (e.g., using personal pronouns, “I”) should be associated with lower instances of “tried it” counts compared to product posts that are not described using any type of identity-relevant or identity-signaling language. I believe this pattern should exist as the identity-relevant posts should fulfill consumers’ identity-signaling needs, obviating the need for actual purchase of the products they post.

Data

My dataset includes publicly available pins from the “Men’s Style” and “Women’s Style” category homepages on Pinterest.com collected daily for one month between May 8 and June 8, 2017. My analysis is based on 51,033 distinct product pins. For each pin at the time of data

collection I knew: (1) i.e., number of times the pin, at the time of data collection, had been indicated as “tried,” (2) the number of times the pin had been “pinned,” (3) the general product description (e.g., Grey Suede Jacket), and (4) the description of the product made by Pinterest users (e.g., “My Style” or “Fashion Forward”).

For my analysis, I was interested specifically on how the Pinterest user descriptions (e.g., “My Style”) would influence the “tried it” count. I coded these descriptions using the Linguistic Inquiry and Word Count (LIWC) program for natural language processing of text data (Pennebaker et al. 2007). The program consists of a number of dictionaries for linguistic categories such as “social words” (e.g. “talk”, “they”) or “perceptual processes” (e.g. “observing,” “heard”).

As my research focuses on how posting identity-relevant products can fulfill identity-signaling needs, I was primarily interested in finding a linguistic category that could be relevant to identity-signaling: self-labeling personal pronouns (1st person pronoun category—I, Me, Mine). This was chosen as self-incorporation is arguably one of the most important parts of making a category label into an actual identity (Kihlstrom 1992; Reed et al. 2012). Thus, language that was self-focused and self-labeling appeared to be the most relevant linguistic category to represent if a product was identity-relevant or incorporated into a person’s self-concept.

Results

First, I looked for model-free evidence in support of my prediction that “self-labeling” language (i.e., proxy of identity-signaling) should negatively impact the count of “tried it” votes. In this dataset, 28% of pins had been “tried” and 13% had been described using personal pronouns based on the LIWC dictionary. The average number of “tried it” votes received by a pin that had no identity-relevant language was higher ($M = .86$, $SD = 3.19$) than the average count of “tried it” votes for pins that had identity-relevant language ($M = .48$, $SD = 1.65$). This initial finding provides support for the idea that after a consumer has been able to identity-signal through their posted products on social media, they are less likely going to be interested in then purchasing the product.

Next, I estimated a series of regression models to test my predictions. Since my dependent variable is the count of “tried it,” I used a zero-inflated negative binomial regression model to test the effect of identity-signaling language on this purchase intentions proxy. In a base model without control variables the effect of self-labeling pronouns was negative and significant ($b = -.536$, $\chi^2 = 181.21$, $p < .0001$). Adding control variables to the base model that could also conceivably impact the “tried it” count (description word count, gendered terminology, number of times the review was pinned) did not change the result ($b = -.587$, $\chi^2 = 209.55$, $p < .0001$). For robustness, I also ran Poisson regressions (zero-inflated and non-inflated), along with a non-zero-inflated negative binomial regression, which provided consistent results but had inferior fit compared to the zero-inflated negative binomial regression.

Discussion

In summary, these results provide preliminary evidence that my hypothesis (i.e., that identity-signaling needs can be met through identity-relevant product posting, obviating the need for actual purchase) exists in situations where consumers are not prompted to engage in behaviors. I

do acknowledge, however, that the effect of the “self-labeling pronouns” on “tried it” count could be due to various alternative explanations. There is also a lack of causal connection between a user “pinning” a product and then being the one to have “tried” it, nor is there a causal link between indicating the product has been tried and actual purchase. I address these limitations in my experimental studies and emphasize that this analysis was conducted as a preliminary analysis on the effect in real-world data.

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